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NOTICE.

THE Council of the Statistical Society of London wish it to be understood, that, while they consider it their duty to adopt every means within their power to test the facts inserted in this Journal, they do not hold themselves responsible for their accuracy, which must rest upon the authority of the several Contributors.

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QUARTERLY JOURNAL
OF THE
STATISTICAL SOCIETY OF LONDON.

MARCH, 1846.

Sketch of the Progress and Present Extent of Savings' Banks in the United Kingdom. By G. R. PORTER, Esq., F.R.S.

[Read before the Statistical Section of the British Association, at Cambridge,
20th June, 1845.]

AMONG the "signs of the times" which it is most satisfactory to contemplate, because it affords at once evidence of social progress, and furnishes the best assurance for its continuance, must be placed the fact, that among the classes of our countrymen who are in circumstances of ease and comfort, there has of late arisen a great and growing concern for the well-being of the less favoured and more numerous class—those whose daily subsistence must be acquired by their daily toil. Influences to this end have long been quietly but steadily at work, set in motion by individuals, few in number, and, for the most part, of small account in the eyes of the world, who were at first sustained only by the consciousness of duty performed, and who long remained uncheered by any evidences of success; those influences are now, however, openly and even ostentatiously employed; they have found their way into every circle, and have even received the homage of the Senate. It has become fashionable to express the desire of promoting the general welfare of the working classes, and even to make some exertion to secure it, and we can hardly conceive that this stage of the question could have been reached, unless through the sense of its importance having taken a firm hold of the public mind, enlisting among its promoters men who, by means of their station and intellectual endowments, must command the attention of society.

The present is not an occasion on which it would be proper to enlarge upon the moral obligation to which allusion has now been made; but it is clearly within the province of statistical inquiry to ascertain, as correctly as possible, the actual condition of those whom we would seek to benefit. Without such inquiries we must always be, as it were, groping in the dark, and liable to make a profitless use of our energies, if even they should not be hurtfully employed.

Various efforts, which have been attended with more or less of success, have been made of late years by our Statistical Societies, and by means of Government Commissioners, to place before the world true pictures of the social condition of the great masses of our fellow countrymen, who form, what by a somewhat arbitrary distinction, are called the working classes; and from a variety of Journals and Parliamentary Reports, much is to be learned concerning their means of living, as well as the manner in which such means are employed. Our hours of leisure could hardly find better employment than in studying the different volumes in which this subject is authoritatively treated, in weighing the recommendations which they offer, and in helping to carry into execution those among them which appear to call for adoption, and which it may be in our power to forward. The volumes in

question are within the reach of every one, and it would be productive of but little good to call away attention from them, by offering an analysis, or pretended analysis, of their contents. There is, however, one subject, intimately connected with the matters of which they treat, and which at the same time has become a thing of national importance, inquiry into which may throw light upon every branch of the subject, and which has not been made the matter of any recent investigation,—the progress of Savings' Banks,—in describing which, I would now venture to solicit a few minutes of attention on the part of the Section.

Savings' Banks, it is well known, are to be placed among the inventions of the present century. They are of English origin, although, happily, they are not now confined to these kingdoms. We owe their institution to a well-known benevolent lady, Mrs. Priscilla Wakefield, who, in 1804, induced six gentlemen, residing at Tottenham, near London, to receive deposits from labourers and servants, and to be responsible for their safety and return when needed to the depositors, with 5 per cent. interest thereon, provided the sum were not less than 20s., and had remained for a year at least in their hands. Deposits of not less than one shilling were received. Four years later (1808), eight individuals, of whom four were ladies, took upon themselves the like responsibility at Bath, engaging to pay 4 per cent. interest upon all deposits up to 50*l.*, but limiting to 2,000*l.* the whole sum to be deposited. In the same year, the late Mr. Whitbread tried, without success, to procure legislative sanction for a plan, whereby the small savings of the industrious labourer and artisan would be placed under the safeguard of public Commissioners.

The first Savings' Bank, regularly and minutely organized, was "The Parish Bank Friendly Society of Ruthwell," in Dumfries-shire, established through the exertions of Mr. Henry Duncan in 1810; and it was mainly owing to its success, as set forth in the published reports of that gentleman, that many other institutions were formed upon the model of that at Ruthwell, so that before any legislative provision had been made for their encouragement, there existed 70 Savings' Banks in England, 4 in Wales, and 4 in Ireland.

In July, 1817, two Acts received the Royal Assent for encouraging the establishment of Banks for Savings in England and Wales, and in Ireland. It was not until 1835, that these institutions were placed under legislative regulation in Scotland, a circumstance which in all probability is to be ascribed to the facilities given by Bankers in that part of the kingdom for the profitable deposit with them of small sums. Under the Acts of 1817, the sums deposited were placed by the Trustees of each Bank in the hands of the Commissioners for the reduction of the National Debt, who thereupon issued debentures for the amount bearing interest at the rate of 3*l.* per cent. per diem, or 4*l.* 11*s.* 3*d.* per cent. per annum. It was customary for the Trustees to allow 4 per cent. only to the depositors, retaining the balance of the interest received from Government to defray the necessary charges of the establishment for office rent, clerks, &c.

The progress of these Savings' Banks, after receiving the sanction of the legislature, has become a matter of national importance, not only as affording means for judging concerning the actual and comparative condition from time to time of those classes of persons who

make deposits, but also as incentives to prudence, and in some degree too, as security for good citizenship, among a very numerous body, now numbering more than a million of our fellow subjects, who are thus made to feel that they too have an interest in the stability of Government, and something to lose from acts of violence. By this means some slight degree of sympathy in feeling and interest has been created between classes as to whom that link was previously wanting, so that the untaught or ill-taught labourer or artisan who has a small, but to him important, capital, arising from his savings, and deposited in the Savings' Bank, can no longer look with the same feelings of estrangement as formerly upon those whose savings, or those of their prudent ancestors, may have exceeded their own.

During the five months that followed the passing of the Acts of 1817, viz., to 5th January, 1818, the savings deposited with the Commissioners for the reduction of the National Debt amounted to 328,282*l.* In each of the following thirteen years, to 5th January, 1831, the sums so deposited were—

<i>l.</i>					<i>l.</i>				
Year ending 5th Jan ^y .	1819	....	1,567,667		Year ending 5th Jan ^y .	1826	....	1,261,290	
"	5th	"	1820	.... 1,019,612	"	5th	"	1827	.... 526,155
"	5th	"	1821	.... 707,106	"	5th	"	1828	.... 979,641
"	5th	"	1822	.... 1,205,960	"	5th	"	1829	.... 931,361
"	5th	"	1823	.... 1,632,166	"	5th	"	1830	.... 450,137
"	5th	"	1824	.... 1,932,448	"	5th	"	1831	.... 549,459
"	5th	"	1825	.... 2,586,219					

forming an aggregate sum of 15,677,503*l.*, the greater part of which appears to have been permanently lodged, since the sum remaining in deposit on the 20th November, 1830, is stated to have been 13,507,565*l.*, so that the sums withdrawn must have amounted in all that time to but little more than two millions in addition to the interest allowed.

From and after the 20th November, 1829, detailed statements have been made up from year to year, showing the sums remaining in deposit, including interest, and the number of depositors in various classes according to the amount of their deposits, in each division, and in each county of the kingdom. The aggregate number of depositors and sums deposited are shown in the following summary:—

Year ending 20th Nov.	England.		Wales.		Ireland.		Scotland.		United Kingdom.	
	Depositors.	Amount.	Depositors.	Amount.	Depositors.	Amount.	Depositors.	Amount.	Depositors.	Amount.
	<i>l.</i>		<i>l.</i>		<i>l.</i>		<i>l.</i>		<i>l.</i>	
1830	367,812	12,287,606	10,204	314,903	34,201	905,056	..	..	412,217	13,507,565
1831	380,130	12,354,617	10,374	322,546	38,999	1,042,332	..	..	429,503	13,719,495
1832	373,704	11,956,289	10,014	301,509	43,755	1,178,201	..	..	427,473	13,435,999
1833	402,607	12,680,512	11,015	329,887	49,170	1,327,122	..	..	462,792	14,337,521
1834	434,945	13,582,102	11,183	336,976	53,179	1,450,766	..	..	499,207	15,369,844
1835	466,862	14,491,316	12,173	356,135	58,482	1,608,653	..	..	537,517	16,456,104
1836	515,444	16,491,949	13,110	422,585	64,019	1,817,264	6,753	74,086	599,326	18,805,884
1837	544,449	17,178,041	13,963	455,846	64,101	1,829,226	13,553	160,902	636,066	19,624,015
1838	595,425	18,566,490	15,232	498,359	69,933	2,048,469	22,646	279,994	703,236	21,393,312
1839	622,468	19,246,221	15,893	525,320	75,296	2,218,239	34,739	436,032	748,396	22,425,812
1840	692,338	20,203,438	15,825	521,018	76,155	2,206,733	43,737	538,961	798,055	23,471,050
1841	695,791	21,036,190	16,220	527,688	78,574	2,302,302	50,619	608,509	841,204	24,474,689
1842	723,374	21,780,373	16,434	531,928	80,604	2,354,006	54,303	652,129	874,715	25,319,336
1843	773,551	23,344,273	17,077	555,849	82,486	2,447,110	62,236	830,083	935,530	27,177,315
1844	832,290	25,112,865	18,690	599,796	91,243	2,749,017	69,824	1,043,183	1,012,047	29,504,861

The number of Savings' Banks existing in the different divisions of the kingdom on the 20th November of each year beginning with 1830, was as follows:—

Year.	England.	Wales.	Ireland.	Scotland.	TOTAL.
1830	379	25	72	....	476
1831	383	22	68	....	473
1832	380	22	70	....	472
1833	380	23	75	....	478
1834	379	22	74	....	475
1835	383	23	75	....	481
1836	387	23	79	2	491
1837	398	23	78	9	508
1838	407	23	80	12	522
1839	418	23	80	20	541
1840	421	23	79	23	546
1841	427	23	76	27	553
1842	434	23	75	31	563
1843	437	23	73	34	567
1844	439	23	73	36	571

In addition to the numbers and the amounts shown in the foregoing summary, should be reckoned certain Friendly Societies, which during the last five years have been included in the accounts as being in direct communication and account with the Commissioners for the reduction of the National Debt. These were—

In the year ending	£.
20th November 1840, 332 Societies having deposits amounting to	1,217,765
„ 1841, 354	1,306,949
„ 1842, 371	1,449,244
„ 1843, 395	1,609,288
„ 1844, 428	1,770,775

£.
Making the total deposits in those years amount in 1840 to 24,688,815
„ „ 1841 „ 25,781,638
„ „ 1842 „ 26,768,580
„ „ 1843 „ 28,786,603
„ „ 1844 „ 31,275,636

It will be seen, that with the exception of only one year in the entire series, there has been a constantly increasing sum thus deposited. In 1832, doubtless owing to the political ferment in which the nation was then involved, there was a positive decrease in England and Wales, both in the number of depositors, and the amount of their balances, viz.—

England.....	6,426 fewer depositors	.....	£398,328 less deposits.
Wales	360	„	..... 21,037 „

The preceding year, also a time of political excitement, was marked by a much smaller addition than usual to the numbers and amounts of 1830, the increase having been, in

England.....	12,318 depositors	.....	£67,011 deposits
Wales	170	„	..... 7,643 „

The increase in 1833, when the public mind had become more tranquillised, was in

England.....	28,903 depositors	.....	£724,223 deposits.
Wales	1,001	„	..... 28,378 „

It is worthy of remark, that although the same cause agitated the public in Ireland, to which we have attributed this effect in England, it was not accompanied by the same result, possibly because the condition of agitation is one to which the people of Ireland are more accustomed than their fellow subjects in England. The accounts for those years do not include Scotland. The increase, embracing England, Wales, and Ireland, up to 1835 and thereafter, including Scotland also, has been

1831 as compared with 1830	£211,930
1833 " 1832	901,522
1834 " 1833	1,032,323
1835 " 1834	1,086,260
1836 " 1835	2,265,694 including £74,086 Scotland
1837 " 1836	818,131
1838 " 1837	1,769,297
1839 " 1838	1,032,500
1840 " 1839	1,045,238
1841 " 1840	1,003,639
1842 " 1841	844,647
1843 " 1842	1,857,979
1844 " 1843	2,327,546

Including the sums already mentioned as deposited by certain Friendly Societies, the increase, year by year, since 1840, has been

1841 as compared with 1840	£1,092,823
1842 " 1841	986,942
1843 " 1842	2,018,023
1844 " 1843	2,489,033

It is impossible not to remark the superiority over the other years of the series of 1836, 1838, 1843, and 1844, all of which were years of great commercial activity, and all, with the exception of 1838, years of cheapness.

It would have added unreasonably to the number of figures with which any statement of this kind must be more or less accompanied, if the depositors had in each year been classified according to the amount of their deposits. This classification for the year 1844 was as follows:—

	England.	Wales.	Ireland.	Scotland.	TOTAL.
Not exceeding £20.....	461,195	9,459	41,546	52,442	564,642
" 50.....	207,129	5,584	33,298	12,259	258,270
" 100.....	91,729	1,998	10,601	3,249	107,577
" 150.....	32,083	634	3,024	640	36,381
" 200.....	18,551	294	1,583	201	20,629
Exceeding 200.....	2,914	38	92	....	3,044
	813,601	18,007	90,144	68,791	990,543
Charitable Institutions	9,789	205	677	630	11,301
Friendly Societies	8,900	478	422	403	10,203
	832,290	18,690	91,243	69,824	1,012,047
Friendly Societies in direct account with Commissioners	....	....	....	....	428
Total .....	....	....	....	....	1,012,475

The centesimal proportions in which the different classes stand to the whole number of individual depositors, are as follows:—

	England.	Wales.	Ireland.	Scotland.	United Kingdom.
Not exceeding £20.....	56·68	52·53	46·09	76·24	57·00
„ 50.....	25·46	31·01	36·94	17·82	26·08
„ 100.....	11·28	11·10	11·76	4·72	10·86
„ 150.....	3·94	3·52	3·35	0·93	3·67
„ 200.....	2·28	1·63	1·75	0·29	2·08
Exceeding 200.....	0·36	0·21	0·11	....	0·31
	100·	100·	100·	100·	100·

It thus appears that the largest proportion of small deposits is made in Scotland, more than three-fourths of the whole being in sums under 20*l.*, a circumstance which may be ascribable to the facility afforded by bankers as already noticed. The smallest proportion of deposits of lowest amount is found in Ireland; a fact which probably results from the extreme poverty of the peasantry, and which deprives them of the power of making any savings, causing the Savings' Banks to be the resort of classes in more easy circumstances than the generality of those who make deposits in England.

The average balances to the credit of each depositor in the different divisions of the kingdom have been (discarding all fractional parts of a pound):—

	England.	Wales.	Ireland.	Scotland.	Total.
	£	£	£	£	£
Nov. 20, 1830	33	31	26	....	33
„ 1831	32	31	26	....	31
„ 1832	31	30	26	....	31
„ 1833	31	29	27	....	31
„ 1834	31	30	27	....	30
„ 1835	31	29	27	....	30
„ 1836	31	29	28	9	30
„ 1837	30	30	28	11	30
„ 1838	30	30	29	11	30
„ 1839	30	30	29	11	29
„ 1840	29	29	29	11	28
„ 1841	29	29	29	11	28
„ 1842	29	29	29	11	28
„ 1843	30	33	30	13	29
„ 1844	30	32	30	14	29

With the exception of the last two years of the series, in which there has been a general increase observable in the average deposits, the above figures exhibit a marked difference between England and Ireland, the average sum having regularly diminished in the former division, while it has as regularly increased in the latter division.

During the fifteen years for which the accounts have been regularly made up, the per centage increase in the number of depositors and amount of their balances has been:—

	Depositors.	Amount.
England	126 per cent.	104 per cent.
Wales	83 " 	90 "
Ireland	167 " 	203 "
Scotland (from 1836)	934 " 	1308 "

In the following tables the present condition is shown of each county of England, Wales, Ireland, and Scotland respectively, as regards the savings deposited in these Banks by the people. Assuming as the basis for the calculation, the population of 1841, it will there be seen what proportion among them has deposits in a Savings' Bank, and the sum per head to which those deposits would amount, if equally divided among the whole number of inhabitants.

ENGLAND.

County.	Population, 1841.	Number of Depo- sitors.	Amount of Deposits.	Average sum de- posited.	Proportion of Depo- sitors to population.	Sum deposited per individual of the whole population.
			£	£		s. d.
Bedfordshire	107,937	3,584	111,526	31	1 in 30	20 8
Berks	160,226	12,020	359,676	29	" 13	44 10
Bucks	155,989	4,637	128,025	27	" 33	16 5
Cambridge	164,509	3,831	121,777	31	" 43	14 9
Chester	395,300	15,302	554,400	36	" 26	28 0
Cornwall	341,269	12,915	492,013	38	" 26	28 10
Cumberland	177,912	7,538	211,741	28	" 23	23 9
Derby	272,202	10,099	321,897	31	" 27	23 4
Devon	533,731	49,866	1,492,072	29	" 11	55 11
Dorset	174,743	11,470	412,628	35	" 15	47 2
Durham	324,277	7,323	201,354	27	" 44	12 5
Essex	344,995	14,413	428,202	29	" 24	24 9
Gloucester	431,307	25,526	818,157	32	" 17	37 11
Hereford	114,438	8,350	211,251	25	" 13	36 10
Hertford	157,237	3,785	113,425	29	" 41	14 5
Huntingdon	58,699	1,765	52,001	29	" 33	17 8
Kent	548,161	33,392	945,273	28	" 16	34 5
Lancaster	1,667,064	65,402	1,980,143	30	" 25	23 9
Leicester	215,855	6,803	173,581	25	" 32	16 1
Lincoln	362,717	18,451	497,509	26	" 19	27 5
Middlesex	1,576,616	176,849	4,521,589	25	" 9	57 2
Monmouth	134,349	3,099	76,651	24	" 43	11 5
Norfolk	412,621	18,336	527,300	28	" 22	25 6
Northampton ...	199,061	8,410	243,600	28	" 23	24 5
Northumberland	250,268	12,862	459,390	35	" 19	36 8
Nottingham	219,773	15,763	420,345	26	" 16	33 6
Oxford	161,573	10,216	285,713	27	" 15	35 4
Rutland	21,340	not any	Savings'	Bank	in this	county.
Salop	239,014	16,452	557,190	33	" 14	47 0
Somerset	436,002	22,019	679,072	30	" 19	31 1
Southampton	351,940	23,942	687,473	28	" 14	38 8
Stafford	510,206	15,368	452,306	29	" 33	17 8
Suffolk	315,129	11,972	318,176	29	" 26	22 1
Surrey	582,613	31,250	749,199	23	" 19	25 8
Sussex	299,770	15,709	420,570	26	" 19	28 0
Warwick	402,121	21,221	468,270	22	" 19	23 3
Westmorland	56,169	912	24,719	26	" 59	8 9
Wilts	260,007	11,706	413,911	35	" 22	31 10
Worcester	233,481	12,218	401,330	32	" 19	34 4
York	1,591,584	69,545	2,105,866	30	" 23	26 5

WALES.

County.	Population in 1841.	Number of Depo- sitors.	Amount of Deposits.	Average sum de- posited.	Proportion of Depo- sitors to population.	Sum deposited per individual of the popu- lation.
			£	£		s. d.
Anglesea.....	50,890	1,990	58,115	29	1 in 26	22 10
Brecon	53,295	1,073	25,045	23	„ 49	9 5
Carmarthen	106,482	527	14,177	26	„ 202	2 8
Cardigan	68,380	816	20,637	25	„ 83	6 0
Carnarvon	81,068	408	11,612	28	„ 198	2 10
Denbigh	89,291	1,903	46,003	24	„ 46	10 3
Flint	66,547	2,771	86,683	31	„ 24	26 0
Glamorgan.....	173,462	3,695	115,604	31	„ 47	13 4
Merioneth	39,238	587	15,646	26	„ 66	7 11
Montgomery	69,220	2,127	58,502	27	„ 32	16 10
Pembroke	88,262	2,110	66,324	31	„ 41	15 0
Radnor	25,186	not any	Savings'	Bank	in this	County.

IRELAND.

County.	Population in 1841.	Number of Depo- sitors.	Amount of Deposits.	Average sum de- posited.	Proportion of Depo- sitors to population	Sum deposited per individual of the popu- lation.
			£	£		s. d.
Antrim	360,875	6,168	129,922	21	1 in 58	7 2
Armagh	232,393	2,264	69,492	30	„ 102	5 11
Cavan	243,158	308	8,904	28	„ 789	0 10
Clare	286,394	834	24,328	29	„ 343	1 8
Cork	854,118	15,684	506,246	32	„ 33	11 10
Down	361,446	4,805	152,380	31	„ 75	8 5
Dublin	372,773	24,178	683,487	28	„ 15	36 4
Fermanagh.....	156,481	1,535	54,303	35	„ 102	6 11
Galway	440,198	396	10,063	25	„ 1,111	0 5
Kerry	293,880	1,510	37,969	25	„ 194	2 7
Kildare	114,488	1,018	29,070	28	„ 112	5 1
Kilkenny	202,420	1,398	48,021	34	„ 144	4 9
King's County	146,857	1,365	42,937	31	„ 108	5 10
Limerick	330,029	4,318	146,731	33	„ 76	8 10
Londonderry	222,174	1,961	49,686	25	„ 113	4 5
Louth	128,240	3,126	92,413	29	„ 41	14 4
Mayo	388,887	1,406	43,904	31	„ 276	2 3
Meath	183,828	1,486	47,324	31	„ 122	5 1
Monaghan	200,442	926	25,473	27	„ 216	2 6
Queen's County	153,930	1,128	35,437	31	„ 136	4 7
Roscommon	253,589	921	32,256	35	„ 275	2 5
Sligo	181,002	865	27,493	31	„ 209	3 0
Tipperary	435,552	3,512	111,431	31	„ 124	5 1
Tyrone	312,956	1,846	51,034	29	„ 169	3 5
Waterford	196,187	3,782	110,133	29	„ 51	11 2
Westmeath.....	141,300	733	33,243	45	„ 192	4 8
Wexford	202,033	1,457	47,907	32	„ 138	4 8
Wicklow.....	126,143	1,214	31,111	25	„ 103	4 11

Not any Savings' Bank in Carlow, Donegal, Drogheda, Leitrim, or Longford.

SCOTLAND.

County.	Population in 1841.	Number of Depo- sitors.	Amount of Deposits.	Average sum de- posited.	Proportion of Depo- sitors to population.	Sum deposited per individual of the popu- lation.
			£	£		s. d.
Aberdeen	192,283	1,710	22,750	13	1 in 112	2 4
Argyll.....	97,140	240	3,353	13	„ 404	0 8
Banff	50,076	462	6,733	14	„ 108	2 8
Berwick	34,427	189	3,177	16	„ 182	1 10
Bute	15,695	561	8,155	14	„ 28	1 4
Caithness	36,197	218	3,225	14	„ 166	1 9
Clackmannan....	19,116	140	1,627	11	„ 136	1 8
Dumfries	72,825	344	4,061	11	„ 211	1 1
Edinburgh	225,623	23,859	322,346	13	„ 9	28 6
Fife.....	140,310	2,972	48,125	16	„ 47	6 10
Forfar.....	170,400	4,616	48,006	10	„ 37	5 7
Inverness	97,615	856	9,341	10	„ 114	1 11
Kincardine.....	33,052	1,149	22,549	19	„ 28	13 7
Kirkcudbright	41,099	265	2,591	9	„ 155	1 3
Lanark	427,113	19,774	294,726	14	„ 21	13 9
Moray	34,994	1,838	27,472	14	„ 19	15 8
Nairn	9,218	198	2,212	11	„ 46	4 9
Perth	138,151	4,735	60,721	12	„ 29	8 9
Renfrew	154,755	2,361	36,107	15	„ 65	4 8
Ross & Cromarty	78,980	415	4,126	10	„ 190	1 0
Roxburgh	46,003	804	20,188	25	„ 57	8 9
Selkirk	7,989	315	4,812	15	„ 25	12 0
Stirling	82,179	770	9,746	12	„ 106	2 4

Not any Savings' Bank in Ayr, Dumbarton, Haddington, Kinross, Linlithgow, Orkney and Shetland, Peebles, Sutherland, or Wigton.

It may appear strange that, with the exception of Middlesex, the metropolitan county, and the great centre of wealth and of the employments which wealth creates, the largest amount of deposits, in proportion to the population, should be found in Devonshire, an agricultural county, in which there were, in a population of 533,460 persons, in 1841, fewer than 7,000 employed in all kinds of manufactures. This fact is, however, capable of easy and satisfactory explanation. The Devon and Exeter Savings' Bank has been for many years placed under very zealous and able management; and, in addition to the constant services of Mr. Lee, its actuary, has received the support of considerably more than an hundred clergymen and gentlemen residing at different places within the county, who have taken pains to make known among the labouring poor in their respective neighbourhoods the benefits to be derived from even the smallest savings, and who have, at the cost of some personal trouble, received such savings and transmitted them to Exeter for investment,—an operation which, unaided, the depositors could hardly have accomplished. This fact should serve as a stimulus to others who have the like opportunity of benefiting their poor neighbours, showing as it does that even in the least promising soil they may reap a large harvest of success if the needful labour be not withheld. On the other hand, it may create surprise that Lancashire, at the head of our manufacturing population,

should stand so low in the scale with regard to the savings of the working classes, that there should be twenty-five counties of England, the average deposits in which are greater. This too is capable of explanation that must be satisfactory. In towns, and especially in places that are rapidly increasing, as the manufacturing towns and villages of Lancashire and the neighbouring counties have long been, more profitable opportunities present themselves for the investment of small sums than are offered by Savings' Banks. Among these opportunities Building Clubs are common in those localities, and absorb the working man's savings to an extent which few persons who have not inquired into the subject would conceive probable.

The advantage held forth by the Government to the working man, as an inducement for him to save a portion of his earnings, was greater under the Act of 1817 than it is at present. The rate of interest then fixed was, as already stated, 3*d.* per centum per diem, or 4*l.* 11*s.* 3*d.* per cent. per annum; out of which the allowance made to depositors was usually 4 per cent., the remaining 11*s.* 3*d.* being retained to defray expenses. There was no restriction then placed upon depositors as to the amount of their savings; they might deposit 100*l.* the first year, and 50*l.* every year after, so long as they might be inclined or able to do so, and they might make investments in as many different Savings' Banks as they judged proper and could effect. In time, however, parties, not contemplated by the legislature in framing the law, finding that they could thus secure a higher rate of interest than was yielded by the public funds, and at the same time save all risk of fluctuation in the value of their deposits, used the Savings' Banks to an inconvenient extent, and in 1824 an Act was passed, limiting the amount that might be deposited, the first year to 50*l.*, and all future yearly deposits to 30*l.*, with the further restriction that no person should receive interest upon any amount beyond 200*l.*, and that no person should be allowed to have deposits in more than one Savings' Bank. In 1828 the rate of interest was reduced to 2½*d.* per centum per diem, or 3*l.* 8*s.* 5¼*d.* per cent. per annum; the largest sum received in any one year was fixed at 30*l.*, and 150*l.* was adopted as the largest sum upon which interest would be paid to any one depositor. In 1833, the laws relating to Savings' Banks were extended to the Channel Islands; and in 1835, as already stated, they were made to embrace Scotland. The latest Act for the regulation of these institutions was passed in 1844; it further lowered the rate of interest paid by the public to 3¼ per cent. per annum; reducing to 2*d.* per cent. per diem, or 3*l.* 0*s.* 10*d.* per cent. per annum, the allowance to depositors. This change took effect from and after the 20th November, 1844, the day to which the statements now brought forward are made up. Whether or not the allowing of a liberal rate of interest has much influence on the minds of the working classes, leading them to spare a portion of their earnings, is a question which the result of this change may enable us to answer. If that answer should be in the affirmative, if the now diminished allowance for interest should in any degree check the disposition to saving on the part of the classes for whom Savings' Banks are opened, the economy of Parliament in thus restricting that allowance will prove a measure of very doubtful wisdom, and one as to which the legislature cannot too soon retrace its steps.

It is to be regretted that the managers of Savings' Banks have not generally availed themselves of the opportunities which they possess for throwing light upon the condition and habits of the various classes making deposits, by recording and publishing their occupations. Many years ago, the Statistical Society of London addressed circular letters to each Savings' Bank then existing, accompanied by forms to be filled up, and pointing out the advantage of possessing correct knowledge upon the subject. This well meant effort proved, however, wholly abortive. Some few of these establishments are accustomed to publish such information; among those are "The Devon and Exeter Savings' Bank," already mentioned, and "The Manchester and Salford Bank for Savings." As it may be useful to know the result exhibited by the accounts of two establishments, similar in their object, but differing so materially in their circumstances, I shall close this sketch by calling attention to their several statements.

*Analysis of Depositors in the Devon and Exeter Savings' Bank from
1827 to 1833.*

	Number.	Amount of Deposits.	Average Deposit.
		£	£ s. d.
Male servants.....	867	43,612	50 6 0
Female servants	3,574	106,022	29 13 3
Children of servants	344	3,284	9 10 11
Total Servants	4,785	152,918	31 19 2
Small shopkeepers.....	503	26,900	53 9 7
Artificers and mechanics	2,365	90,839	38 8 2
Labourers	118	2,916	24 14 1
Females in trade	612	20,269	33 2 4
Apprentices	448	2,615	5 16 9
Carriers, drivers, porters, &c.	194	8,535	43 19 11
Teachers, clerks, and shopmen.....	470	21,224	45 3 2
Children of the above	3,778	50,840	13 9 1
Total Traders and Manufacturers	8,488	224,138	26 8 1
Small farmers.....	788	40,190	51 0 3
Labourers	2,050	65,757	31 18 8
Children of the above.....	3,844	53,933	14 0 7
Total Agriculturists	6,691	159,880	23 17 11
Soldiers, sailors, revenue officers, &c.	1,080	40,977	37 18 10
Miscellaneous.....	879	32,654	37 2 11

Classification of Depositors, with the Balance due to each Class, at November 20, 1843, in the Manchester and Salford Bank for Savings.

DESCRIPTION OF DEPOSITORS.	Total Number of Accounts opened under each class.		Number of Accounts of each class remaining open at 20th Nov., 1843.	Total Amount belonging to each class, 20th Nov., 1843.	Average amount due to each individual, Nov. 20, 1843.
	Male.	Female.			
Domestic servants.....	1,301	7,854	9,155	£86,131 13 1	£26
Clerks, shopmen, warehousemen, porters, and wives.....	4,807	386	5,253	49,659 12 1	27
Minors.....	3,514	3,489	7,003	55,134 6 4	15
Milliners, dressmakers, and needle-women.....	....	1,530	1,530	13,807 11 8	25
Shoemakers, tailors, hatters, and their assistants.....	1,551	276	1,827	11,984 8 2	28
Cotton-spinners, weavers, and their assistants.....	3,717	1,431	5,148	29,273 8 6	26
Silk-spinners, weavers, and their assistants.....	244	236	480	4,263 1 10	28
Calico-printers, bleachers, dyers, packers, makers-up, &c., and wives.....	1,606	134	1,740	14,472 12 11	29
Engravers, pattern designers, &c., and ditto.....	565	45	610	7,264 1 9	31
Mechanics and handicraftsmen, and ditto.....	1,293	2,306	3,599	32,370 4 0	29
Bookbinders and letter-press printers, and ditto.....	224	22	246	2,029 18 6	23
Masons, bricklayers, and their labourers, and ditto.....	1,525	176	1,701	11,372 0 8	26
Joiners, coach-makers, and cabinet makers, and ditto.....	2,031	177	2,208	16,237 13 4	29
Cab and omnibus-drivers, mail-guards, &c., and ditto.....	124	28	152	1,597 19 1	32
Policemen, soldiers, and pensioners, and ditto.....	323	28	351	3,189 11 10	27
Professional teachers and artists, and ditto.....	648	370	1,018	11,739 4 3	32
Tradesmen and small shopkeepers.....	1,443	848	2,291	23,772 11 2	35
Farmers, gardeners, and their labourers and wives.....	1,102	133	1,235	15,823 18 6	31
Other descriptions not particularly specified.....	2,160	5,064	7,224	76,784 4 6	35
Friendly Societies.....	28,238	24,533	52,771	466,908 2 2	26
Charitable Institutions, including Clothing Societies.....	....	....	565	16,128 19 5	72
	....	....	207	5,787 17 7	52
	28,238	24,533	53,543	488,824 19 2	

Classification of Depositors, with the Balance due to each Class at 20th November, 1844.

DESCRIPTION OF DEPOSITORS.	Total Number of Accounts opened under each class.		No. of Accounts of each Class remaining open at 20 November, 1844.	Total amount belonging to each class, 20th November, 1844.	Average amount due to each class, 20th November, 1844.
	Male.	Female.			
Domestic servants.....	1,331	8,641	3,500	£92,302 11 9	26
Clerks, shopmen, warehousemen, porters, and wives.....	5,290	459	2,002	57,645 5 9	28
Minors	3,855	3,835	3,775	*62,747 3 11	16
Milliners, dressmakers, and needle-women.....	....	1,723	609	15,968 17 6	26
Shoemakers, tailors, batters, and wives	1,704	311	471	13,904 5 6	28
Cotton spinners, weavers, and their assistants	3,989	1,582	1,311	37,391 5 11	28
Silk spinners, weavers, and their assistants.....	273	274	193	5,058 7 3	26
Calico printers, bleachers, dyers, packers, makers-up, &c., and wives	1,807	199	2,006	8,668 0 7	36
Engravers, pattern designers, &c., and ditto	609	47	656	19,119 8 4	28
Mechanics and handicraftsmen, and ditto	3,735	393	238	8,668 0 7	24
Bookbinders and letter-press printers, and ditto.....	250	26	1,601	39,626 0 7	27
Masons, bricklayers, and their labourers, and ditto	1,697	229	97	2,690 11 4	25
Joiners, coach-makers, and cabinet-makers, and ditto	2,208	215	566	14,591 3 0	28
Cab and omnibus drivers, mail guards, &c., and ditto	156	42	683	19,474 9 5	28
Police-men, soldiers, and pensioners, and ditto	361	41	76	2,164 14 7	28
Professional teachers and artists, and ditto.....	709	409	135	3,999 1 2	29
Tradesmen and small shopkeepers	1,639	1,040	398	13,982 18 7	30
Farmers, gardeners, and their labourers, and wives	1,171	172	919	28,970 15 8	31
Other descriptions not particularly specified	2,225	5,248	538	19,354 19 1	35
			2,474	†83,719 1 10	33
Friendly Societies	33,009	24,886	20,266	541,379 1 9	26
Charitable Institutions, including Clothing Societies.....	....	....	287	19,702 5 11	68
			127	7,231 12 7	56
	33,009	24,886	20,680	568,313 0 3	

* The greatest proportion of this class are no longer minors, the designation as originally entered being retained.
 † This class contains a great number of depositors of different trades belonging to the other classes whose callings were not noted in the Register in the early years of the Bank.

Statistics of Merthyr Tydvil. By G. S. KENRICK, Esq. (*Read before the Statistical Section of the British Association at Cambridge, 24th June, 1845.*)

It is our duty, while we enjoy superior advantages of station or condition, to strive to do something for our less fortunate brethren. To do anything for them with effect we must make ourselves acquainted with them, with the circumstances by which they are surrounded, and the effects which these are calculated to produce on them, both morally and physically. With this view I have been led, however imperfectly, to make an inquiry into the statistics of Merthyr Tydvil—the condition of its inhabitants, its means of education and religious instruction, and the operation of these as seen in the manners and habits of the people.

An Analysis of the Population of Merthyr Tydvil, made in the spring of 1841.

Total Population.....	32,968	Exclusive of Coedycymmer, Hamlet of Vaynor, Taff, and Cymon, and Forest-hill.
Houses	6,145	5½ persons to a house nearly.
Sleeping-rooms	10,835	Three persons to a room.
Children under three years of age....	3,203	
Children from three to twelve years	6,857	Age for education, full one-fifth of the population.
Lodgers	6,140	One for each house.
English people	4,181	13 per cent. of the population.
Welsh	27,802	84 do. do.
Irish	985	3 do. do.
Persons who can speak English intelligibly	10,917	
Children who go to day-schools, by report of their parents	1,272	Less than a fifth of those who ought to go.
Ditto, by report of teachers	1,313	
Pupils attending nineteen Sunday-schools at Dissenting chapels.....	4,581	Average attendance.
Ditto at Church Sunday-schools	350	“ “
Can read	11,774	
Can write	5,709	
Persons among the labouring classes who have other books besides religious books	445	
Do not go to a place of worship.....	11,759	
Workmen occasionally intoxicated....	2,587	Or a thirteenth of the population.
Workmen who have houses being their own property.....	91	
Lodging-houses	59	
Children working and living with their parents	2,940	
Females working	404	
Churches 2, will contain	15,182	
Chapels 26, „		

The mass of the population of Merthyr has been called into activity and brought into this wild district by the establishment of large iron-works belonging to Messrs. Crawshay, Guest, Hill, and Thompson. The

greater part of the people are supported by their daily labour at these works; and the remainder of the population consists of persons who supply them with food, clothing, furniture, beer, physic, law, and divinity. There are very few persons who reside in the black-looking village of Merthyr who are not either directly or indirectly interested in the iron works, in one of the modes mentioned above.

In proceeding to notice in detail the result of our census, we find, in the first place, that there are $5\frac{1}{2}$ persons on an average to each house, which shows that there is more accommodation in this respect than the population to the east of the coal basin enjoys.

The number of persons to each sleeping-room is three, being perhaps as little crowded as the generality of manufacturing towns. In some parts of the village there are houses, however, which contain far too many inmates, and where lodging-houses of a mean description are crowded with persons of different professions, including vagrants, gamblers, and men leading dissolute lives.

In consequence of the number of unmarried men who come from Cardiganshire, Pembrokeshire, and other adjoining counties, to take advantage of the high wages which are given at the iron-works, the usual proportion of males to females is reversed in this parish, and the males much exceed the females; the former being in the ratio of six to five of the latter. This influx of single men from the surrounding country accounts for the great number of lodgers, viz., 6140, whom we find located in Merthyr, being one-fifth of the population, and amounting to one lodger for every house in the parish.

It is surprising that a large village so near the boundary of an English county as Merthyr is, and having such frequent communication with it, should have so small a number of Saxons, as the English are called, among the population—only about 4000 out of a population of 33,000; and there are 11,000, or one-third, who cannot speak English intelligibly, and would not understand an English sermon. The consequence is, that the service at the chapels is generally conducted in Welsh.

In all towns, whether large or small, there is a portion inhabited by persons in easy circumstances, which contrasts strongly with the district occupied by the poor; there is also a part where the decencies of life are generally observed, and another where these observances are not kept up: men will fix their abode and associate with those who resemble them in character and condition of life; added to which, the effect of example is great in producing a level in moral attributes as well as in personal and domestic habits. It will be necessary, therefore, that we should visit all parts of the town, and give as faithful a picture as we can of the inhabitants—their wants, their temptations, their comforts or destitution, their virtues and their vices—that corresponding efforts may be made to encourage what is praiseworthy, and to remove what is injurious or vicious.

It is remarkable how often crowded and uncomfortable dwellings, with unpaved and almost impassable streets, are inhabited by persons who appear to be degraded and demoralized by the unfavourable circumstances in which they are placed. We will begin with Dowlais, which does not captivate a stranger by its cleanliness or neatness, particularly in the back streets, and Longtown is one of the dirtiest

streets in Dowlais. The houses consist of only one room on the ground floor, which is used for all purposes. In one of these houses were stowed ten human beings, viz., a man, his wife, and five children, with three grown-up lodgers; the beds were in a corner of the room separated from the other part by a curtain. The furniture in this street and Twyn of Wagan is of a miserable description: the people are very poor; very few of them attend a place of worship, and almost every house is visited by that scourge of the working classes—intemperance. Eighteen adjoining houses in this district contain 96 persons, and only 22 of these go to a place of worship. Two houses at the back of Bethania Street consist of one small room each, to which there is no access except by walking up a deal plank to these miserable abodes. The one house is inhabited by nine persons, the other by seven. There is scarcely any furniture in these houses, and only one small bed at the corner of the room for all the family; the children must, therefore, be littered on the floor. In a house in an adjoining street there was little furniture, yet the house was neatly kept; but the poor woman complained that her husband was almost always drunk—that he went off on this errand a week ago and was not yet returned. Two of her children were dead; and she wished, for its own sake, the other was dead also. She seemed broken-hearted by the misconduct of her husband. These houses of one room each are said to belong to the Dowlais Company; the rent is about 1s. 6d. a-week, exclusive of coal.

Adkins Row. People poor—dirty—drunken. At one house the woman said she had no Bible now; she had a valuable one some time ago, and lent it to a neighbour, who pawned it for gin.

Street, No. 21. The habitations dirty and poor: there were twelve drunkards in one house, who were not at all ashamed to own it. Only two persons out of the thirteen who lived at this house went to a place of worship.

Street, No. 4. At one of these houses lives a pudler, getting 35s. a-week; but he spends most of his money in drink, and his wife and five children are in a pitiable condition; she would have died for want of food during her last confinement, but for the charity of her neighbours.

Pullywhead. A large proportion of the people are poor, immoral, and drunken, and not more than one-half of them attend a place of worship. One woman said four of her children, under twelve years of age, were working in the coal-pit, and she complained that poverty obliged the younger ones to go, at the cost of their health, because her husband was a drunkard.

Before we leave Dowlais, and proceed to the lower part of the parish, we must make a few general observations. There are a number of houses about the Dowlais Iron Works occupied by 285 families, who mainly derive their support from these works, and we have noted their condition as follows:—

Families bearing the appearance of comfort.....	129
Ditto, poor.....	137
Ditto, miserably poor	11

Ten of these houses are used for the sale of beer, or one beer-house to twenty-seven houses. This fact explains the cause of the poverty of the people, as one-third of the earnings of the workmen is devoted to

the purchase of intoxicating drink. In two streets near this locality are eighty-five houses, and eight of them are used for the sale of malt liquor. These streets are filthy, the houses dirty and crowded; the inhabitants are addicted to drunkenness and immorality, and many of them never attend a place of worship. In passing through Dowlais on a Sunday morning, between seven and eight o'clock, without turning out of the main street, sixty-two drunken people were counted; several of them were sitting on the steps of the beer-shops waiting for the doors to be opened, that they might renew the practices of the previous night.

In proceeding to the houses in the neighbourhood of the Pendarran Iron Works there are three streets near to each other. Respecting the first, we must remark, that the people appeared rather poor and dirty, and there was great complaint of drunkenness. Of the next we must report that the people seemed very poor, and intemperance existed in almost every house. In the third street the houses were poor and filthy, and there are several instances of great wretchedness and distress through intemperance. When the love of strong drink becomes prevalent, it is not confined to the male population, but spreads to the females. In a house in this neighbourhood, and elsewhere in this parish, we saw five or six women, at eleven o'clock in the morning, drinking tea with rum in it. Where women follow this practice of taking spirits while their husbands are at work, their houses and families are untidy and neglected.

Unfortunately, a working man cannot be wasteful or extravagant without making others suffer besides himself. His family suffers in many ways, but not least in the children being taken at a very tender age to work underground, before they have gained sufficient strength to support the fatigue and exposure to which they are subjected. We believe that there are many children at Pendarran, whose fathers, being colliers, carry them on their backs into the colliery, where they remain all day, and some of these children are under five years of age. A boy of seven years of age was taken to work in the coal-pit by his father, and very soon a cold fixed in his limbs, and he has been for several months, and still continues, a great sufferer. No. 53, 22, 100—Child caught cold by attending an air-door, and the lungs of these children are seriously affected. No. 19, 41, 45 bear similar testimony to the evils arising from this practice. At Twyn Rhodyn are eighty children of tender age who are at work, and there are several cases of ill health from this cause.

Street No. 10, Cabin Twyld—These are miserable huts; they lie low, and are damp, filthy, and unhealthy; the people are ignorant and drunken. Guarawar—The houses are ill-furnished and very dirty, and there is much drinking among the people.

It is pleasant to turn from this dark catalogue to Street No. 9 and Llynvapor, which were formerly remarkable for drunkenness. Persons in private houses had been selling beer without a license, when two sober families removed to this place, and there was speedily a reformation in the characters of their neighbours, many of whom are now respectable in conduct, and regular in their attendance at public worship. Such is the effect of example for either good or evil: a drunkard makes others drunken; a virtuous man induces others to become sober and religious.

The neighbourhood of Pontstorehouse is remarkable for dirt and depravity. The houses in streets No. 15 and 16, Quarry-row, are dirty and badly furnished, and the streets in many parts knee-deep in mud: it is a low and unhealthy spot. Street No. 17, the most miserable holes (cellars), and the most wretched and immoral people; a collection of all that is bad. Yet in this place there are a few houses which are quite a contrast to the rest, and form an oasis in this desert.

Pontstorehouse itself is distinguished for its miserable houses and cellars, many of which are used as lodging-houses of the lowest class: there are 16 lodging-houses in this neighbourhood. To prevent reiterating the same thing over again, we must place in one category Street No. 3, storehouses, stable-houses, houses by Iron-bridge, Hollow Island, Pendarran Vach, the general report of which is, that the streets were filthy, the houses dirty, with little furniture, and the people ignorant and intemperate. In some houses the children were almost naked, having no clothes to put on, and their parents were not in the habit of attending public worship; indeed to some of the inhabitants of this district, religion is a thing almost unknown.

Now, we have seen that, in the neighbourhood of the Dowlais, Pendarran, and Cyfarthfa Iron Works, there is a great deal of distress among the people; that the streets in which they live are filthy and untidy; their houses are ill-furnished; they have scarcely clothes or food for the children; yet it is to be remembered that the persons employed in the iron-works have been receiving for seven years 29s. a week on an average, with regular work. But, under these favourable circumstances, in a parish containing 33,000, most of them workmen, only 91 workmen have built or bought houses of their own; and very few indeed have put money in the savings' bank. Though they receive their money every week, and have a good market at which to make their purchases, yet the majority of the workmen are poor—many of them are deeply in debt to the shopkeepers. They cannot afford to send their children to school, but instead of that take them to work at too early an age, to the injury of their health. A large proportion of these sufferers, who are in the decline of life, if they had been prudent would now have been independent of the frowns of the world, and might have retired from work on a handsome competency. All the comforts that they might have enjoyed they have sacrificed for the sake of intoxication by means of a nauseous kind of beer, which would not be considered drinkable in other parts of the kingdom.

The High-street, and the better part of the town, is inhabited by a respectable class of persons, chiefly shopkeepers. Street No. 2, Nanty Gwyneth, contains convenient dwellings with gardens attached; the street is clean, and the moral character of the inhabitants was evinced by our finding several heads of families in the act of reading the Bible, or engaged in morning prayer. A portion of the glebe land is occupied by Scotchmen, who are wandering tea-dealers and hawkers, and some of their houses are furnished with good libraries of works on general literature; but it was very rarely that we found such books on the shelves of the Welsh or English workmen.

Having spoken of cases where parents neglected the moral culture of their children, we have great pleasure in mentioning the praise-

worthy conduct of a shoemaker, whose sons we found first reading and then repeating a chapter from the Bible before they went to their work. The shoemaker wished that his children should have employment for their minds as well as their hands, while they were in the colliery.

The workmen belonging to the Plymouth works, and living near them, are a more orderly people than we found in some other parts of the parish; which may be attributed, in some measure, to the wise precaution of Messrs. Hills, who own the land, and have not suffered it to be overrun with public-houses and beer-shops. The temptation here is not continually before the men, and they are consequently more sober.

List of Day Schools in the Parish of Merthyr.

		Pupils.
Dowlais Dame School, payment 4d. each week		15
" " 4d. "		34
" " 3d. "		50
" Boys and Girls' School, 5d. "		40
" Do. 5d. "		40
Dowlais Co.'s School		200
		<hr/>
		379
Merthyr National School		150
" Boys' School, where Latin is taught, 21s. a quarter.....		60
" do. 8s. "		60
" Boys' and Girls' School, from 6s. to 10s. "		40
" Girls' School 6s. to 10s. "		20
" Boys' and Girls', where reading, writing, and arithmetic are taught at the rate of 6d. a week		36
" Do., do., 6d. a week		30
" Do., do., 5d. "		50
" Do., do., 5d. "		50
" Do., do., 4d. "		70
" Dame School do., 4d. "		20
" Do., do., 4d. "		20
" Do., do., 3d. "		15
" Do., do., 3d. "		20
" Do., do., 3d. "		20
" Do., do., 3d. "		30
" Do., do., 3d. "		20
" Do., do., 3d. "		40
" Do., do., 3d. "		10
" Do., do., 3d. "		15
" Do., do., 3d. "		18
" Do., do., 3d. "		10
" Do., do., 3d. "		30
" Do., do., 3d. "		30
" Girls' School, terms not known		20
" Boys' and Girls', do.		50
		<hr/>
		934
17 Dame Schools		379
15 other Schools		934
		<hr/>

1313

Making a total of 32 schools and 1313 pupils. This includes private and public day schools of all kinds, except Sunday schools. We are sorry to say that our own experience, in a great degree, confirms the report of Mr. Tremenhare, that the teachers in these schools are,

in general, deficient of that degree of learning which is now considered necessary to constitute a well-qualified superintendent of a school. Parents have not been accustomed to expect much from a dame school, and we, therefore, were not surprised to find that, in one instance, the mistress was not able to write her own name. The chief object sought and attained by the dame schools appears to be, that the children may be kept out of mischief; in most of them there was great noise and disorder. One roof covers both a school and a public-house, which are carried on under the same auspices. When the education and moral training of youth is confided to an illiterate publican, we cannot complain that no progress is made in knowledge and virtue, nor be astonished if the population should be ignorant, debased, immoral, drunken. It is wonderful that there should be so many persons in Merthyr who have been able to withstand the temptation of bad example and teaching from their parents, instructors, and associates, and should have sufficient Christian faith and resolution to overcome the adverse circumstances in which they have been placed.

There is but little inducement to send children to some of the schools at Merthyr, and many of them are consequently brought up in what I fear is a more unfavourable atmosphere—the house of their parents, and streets and lanes of the village, where they communicate to each other the bad language they severally learn elsewhere.¹

Can we say that the condition of Merthyr does not call for improvement when we find from the report of the teachers, that only 1313 children attend the day schools, while there are 6857 children who are of a proper age to receive instruction? Perhaps the number at school does not exceed each day 1200 children. It is intemperance, the monster vice of the working classes, which makes the parents complain that they cannot afford to send their children to school, and tempts so many of them to spend their Sundays in the public-house, for the sake of which they entirely neglect public worship. Till this vice is grappled with and eradicated, the moral condition of the people will remain low.

It is gratifying to perceive that most of the places of worship have Sunday schools belonging to them, where, to a certain extent, the deficiency of public day schools is supplied; but, as the teaching is confined to reading, it is to be feared that the attainments of the scholars are very limited, and the knowledge acquired in youth is often lost when the children grow up.

In conclusion—There is a great neglect of drainage in Merthyr: many of the streets are unpaved, and in bad weather the people have to wade through a stratum of mud from six to twelve inches deep.

There are many cellars and miserable hovels that are not fit for men to dwell in. There are many streets without the conveniences which are necessary for the health and comfort of civilized beings.

There are no proper infant schools; no good juvenile schools, two only middling; most of the teachers being illiterate, two of them not able to write. There is no taste for literature among the working classes; very few of them having books on general subjects.

There is a considerable proportion of the people who never attend a place of worship, whose enjoyments are low and degrading, who toil from youth to old age for drink, drink, drink; and when they

are, from old age or sickness, prevented from following their usual occupations, having made no provision for such cases, they are thrown on the parish for support.

Places of Worship in Merthyr Tydvil.

	Will contain Persons.	Average attendance.	Sunday Schools, average attendance.	Communi- cants.
Church of England	820	450	200	
Pontmorlais Calvinistic Methodist....	1,148	Tolerably full.	....	340
Bethlehem "	409	Do.		
Cae Pant Tywyll, say	400	Do.	180	
English Wesleyan	439	Do.	160	160
Welsh Wesleyan	652	Do.	250	300
Zoar, Independent	599	Very full.	350	450
Adullam, "	452	Pretty full.	200	130
Ynis Coy, "	400	Do.	206	198
Bethesda, "	498	Do.	400	497
Trosd y Rhew, "	311	Very full.	120	120
Horeb, "	444	Full.	200	70
Heol Cerrig, "	100	Do.	130	Included in Bethesda.
Scotch Independent.....	288	Not full.		
Ebenezer, Baptist	659	Full.	90	170
Zion, "	1,182	Do.	370	490
Bethel, "	324	Do.	155	122
Tabernacle, "	202	Do.	160	130
New Baptist Chapel	1,030	Do.		
Twyn y Rodyn, Unitarian.....	324	200		
Catholic dwelling-house	300	300		300
Jews.....	30	30		
PLACES OF WORSHIP AT DOWLAIS.				
Church of England	682	400	150	
Caer Salem, Baptist	755	Full.	200	300
Bryn Zion, Independent.....	441	Do.	200	300
Bythania, "	806	Do.	700	600
Hermon, Calvinistic Methodist	1,061	Do.	450	280
Shiloh, Welsh Wesleyan.....	271	Not full.		
English "	155	Not full.	60	50
29 places of Worship	15,182	say 12,000	4,931	5,007

Do not attend	11,759
Say attendance average.....	12,000
Only once a day	3,000
Children under three.....	3,203
Invalids, &c.....	3,006

Total..... 32,968

Statistical Account of the Trade and Navigation of Norway, deduced from Official Papers. By RICHARD VALPY, Esq.

[Read before the Statistical Section of the British Association, at Cambridge, 20th June, 1845.]

THE following information respecting the trade and navigation of Norway has been chiefly collected from an able and interesting return made to the English Government, by J. R. Crowe, Esq., Her Majesty's Consul-General at Hammerfest; and as the subject has been considered a desirable one to bring before the Association, such particulars have been, by permission, abstracted from the return, as appeared the most likely to make this paper acceptable.

The exports and imports are separately considered, and our attention is, in the first place, directed to the export trade of Norway, which chiefly consists of the produce of her forests, fisheries, and mines. The Timber Trade is principally carried on in the southern provinces of Agershuus and Christiansand, and to a less extent in the province of Drontheim.

Deals, principally in 12-feet lengths, barks, round and square, and timber of various dimensions for building materials, constitute the articles of the trade.

The most extensive forests are in the interior, and chiefly on property belonging to peasants.

No regulations for the management of the forests exist in Norway; each proprietor cuts as much wood as he thinks proper. While the country was under the Danish dynasty, various attempts were made by that Government to introduce their own system of control, and for a short period a Forest or Wood Department was established, with officers to regulate the felling; but it was soon abolished, and the quantity and quality to be felled was left to the discretion of the proprietors.

Much has been said and written about the decrease of the woods, but it is now generally admitted by those who are conversant with the subject, that the reproduction is as rapid as the consumption, and that no material decline is to be anticipated.

Autumn and winter are the periods of the year when the timber is felled, and as soon as the snow is sufficiently deep to admit of its being transported, it is conveyed to the banks of the nearest river, to await the freshes in the spring, which carry it either to the saw-mills or sea-coast, as may be required.

The timber is invariably received on the banks of the river by the timber merchants, who mark what they purchase; it then remains on the banks, on account and at the risk of the purchasers, until it is transported by the freshes to the place of destination.

As soon as the rivers begin to increase, proper people are sent up by the purchaser to clear the banks of the timber, and to follow its descent in order to release any that may chance to lodge on the way. Whenever lakes intervene, as is often the case, the timber is then collected into rafts, and conducted across to the opposite outlet. It is there cast adrift, and again carried along by the stream, until it reaches the place where it is to be formed into shapes, suitable to the market for which it may be intended.

To Holland, where the Norway timber is chiefly in demand for piles, it is sent round.

For England, on the contrary, where the demand is exclusively for building materials, with the exception of the timber required in Cornwall for the use of the mines, the balks are always squared.

The principal markets for deals are England, Ireland, France, and Holland, and quantities of an inferior description are sent to Denmark.

For some years this branch of trade has been gradually changing its course. Formerly England was looked upon as the chief and most certain market; and, in return, England retained almost the exclusive trade in manufactures, as but few manufactured goods found their way into the country from other places. With France but little intercourse existed, and scarcely any with the German States.

From 1809, however, the period when the English protective system in favour of Canada came into operation, the decline of this trade with England commenced. Owing to the dimensions of the Norwegian timber and deals, the change pressed more heavily on Norway than on any of the neighbouring States, and such property actually fell in value upwards of 50 per cent. If not entirely and immediately thrown out of the market, the Norwegian dealer laboured under so many disadvantages that ultimately he was driven to seek more favourable outlets for his produce, and these he found in France, where the custom of substituting boarded for stone or brick floors was gradually gaining ground.

As the exports to England fell off, the use of British manufactures decreased in a similar proportion.

Hamburg and the German states became new markets for this description of Norwegian produce, and German manufactures superseded in a great measure those of England.

The following table exhibits the quantities of timber and deals, exported to various countries in each year from 1835 to 1841.

Years.	Great Britain.	France.	Holland.	Belgium.	Denmark.	Hanover.	Other Countries.	Total.
	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.	Loads.
1835	135,987	156,842	160,097	5,317	81,733	16,012	4,442	560,430
1836	140,785	....	....	....	....	....	....	582,047
1837	141,567	....	....	....	....	....	....	571,105
1838	160,357	179,885	162,168	9,150	69,375	18,522	4,459	603,916
1839	151,250	....	....	....	....	....	....	680,517
1840	152,350	....	....	....	....	....	....	666,497
1841	159,602	187,497	177,135	5,480	109,400	21,622	6,132	666,868

NOTE.—The quantities exported to the several countries in 1836, 1837, 1839, and 1840, are not specified with the exception of England.

Thus, in 1835, Holland took 28·56 per cent.; France 27·99; England 24·27; Denmark 14·59; and other countries 4·59 per cent. of the total quantities exported. In 1838 France took 29·79 per cent.; Holland 26·85; England 26·55; Denmark 11·49; and other countries 5·32 per cent. And in 1841 France took 28·11 per cent.; Holland 26·55; England 23·93; Denmark 16·44; and other countries 4·97 per cent. of the total exports of timber.

The annual average quantities of timber exported in the seven years

from 1835 to 1841 were 618,769 loads of 50 cubic feet, which, if we include firewood and articles of minor importance, such as hoops, &c., may be estimated to be worth, at the place of shipment, rather more than two millions of sp. d. or £435,000.

The Fishing Trade is next in importance to the timber trade, and that branch of the industry of Norway forms the chief occupation of the inhabitants of the towns on the west coast, from the Haze to the frontiers at the entrance of the White Sea; Bergen, Drontheim, Christiansand, Tromsøe, and Hammerfest, being the principal of such towns.

The exports consist of stock fish, round and split, clip fish or bacca-lau, salted cod and halibut, in barrels and in bulk, cod roes, salted, herrings salted or pickled, liver and shark oil, and live lobsters.

The stock fish is prepared by the fisherman in the neighbourhood of the fishing-grounds, merely by drying in the open air without salt. It is then conveyed by him to the place of shipment and sold to the merchant. The fish roes are prepared in the same manner by the fisherman; but the preparation of the clip fish (which is similar to that cured at Newfoundland), and the pickling of the herrings, is solely at the risk of the merchant, who makes his purchases as the fish is landed, employing his own people in the ulterior preparations.

The markets for the stock fish are the Italian States, Spain, Portugal, France, and Belgium. Clip fish is chiefly sent to Bilboa; the liver oil to the Hanse Towns, Holland, and Belgium; the cod roes exclusively to France, where they are used as ground bait, chiefly in the bay of Biscay.

Sweden, Russia, and the Prussian states take the herrings in a pickled or salted state, in barrels, and Denmark is also a market for them in smaller quantities.

The stock fish and clip fish form the chief proportion of the fish trade, the herrings are second in importance, the raw and salted cod and halibut next, and lastly the live lobsters.

The progress of the fisheries, since the year 1814, is shown in the next table, where the annual average quantities of fish exported are given in quinquennial periods, from 1815 to 1841.

Periods.	Dried Stock Fish.	Clip Fish, or Baccalau.	Herrings, Salted.	Cod Roes.	Cod Liver, and Shark Oils.	Live Lobsters.
	Tons.	Tons.	Barrels.	Barrels.	Barrels.	No.
1815 to 1819	9,767	1,836	not specified	8,545	19,193	not specified
1820 — 1824	12,851	3,805	{ for these periods.	(not known)	27,265	{ for these periods
1825 — 1829	19,512	7,454		22,146	40,458	
1830 — 1834	20,176	8,039		21,148	25,719	
1835 — 1839	18,959	12,337		22,434	37,063	
1840 — 1841	14,196	11,285	608,086	20,217	41,715	552,272

In addition to the exports here specified, raw fish is exported to some extent, but in what quantities cannot be ascertained.

Although considerable fluctuations appear in the quantities of fish exported at the different periods specified in the above table, which may in a great measure be attributed to the varying nature of the fishing trade, a growing increase has taken place since the year 1814.

The average of the five years from 1815 to 1819, in comparison with the average of the two years 1840 and 1841, exhibits the following results relating to the latter average:—

Dried Stock Fish.	Clip Fish, or Baccalau.	Herrings, Salted, '40-'41 with '35-'39.	Cod Roes.	Cod Liver, and Shark Oils.	Live Lobsters, '35-'39 with '40-'41.
+45 p.ct.	+514 p.ct.	+ 30 per ct.	+137 per ct.	+117 per ct.	— 23 per cent.

and in comparing the average of the fifteen years from 1815 to 1829 with that of the twelve years from 1830 to 1841, the results are as follow, in regard to the latter average:—

Dried Stock Fish.	Clip Fish, or Baccalau.	Herrings, Salted, '35-'39 with '40-'41.	Cod Roes, '15-'19 & '25-'29 with '30 to '41.	Cod Liver, and Shark Oils.	Live Lobsters, '35-'29 with '40-'41.
+27 p.ct.	+142 p.ct.	+ 30 per ct.	+ 39 per ct.	+ 20 per ct.	— 23 per cent.

So that all branches of the fisheries exhibit a very considerable progress since the year 1814, with the exception of lobsters, which have materially decreased in the last of the two periods for which we have figures.

The cod fishery is carried on, with little variation, along the whole coast from Bergen to the White Sea, but the chief seat of it is near the Loffoden Islands, in the neighbourhood of the much, but undeservedly, dreaded Mælstroom; and in the months of February and March upwards of 20,000 men are occasionally engaged in this fishery, which, on the coast of Denmark, also gives employment to from 12,000 to 15,000 men during the summer, and attracts from 300 to 400 Russian vessels annually to its coast.

It is to be observed that the cod liver does not always bear the same relative proportion to the fish. There is a very striking difference occasionally in the quantity of oil the liver yields, for six hundred livers may be required one year to make a barrel of oil, when two hundred are sufficient at another period.

The most important fishery is the herring, and although this is more fluctuating than any other branch of the fishing trade, of late it has been successful for a series of years.

Like the cod, the herring fishery is carried on at two periods of the year, in summer and winter. The chief locality of the latter is along the coast from Mæcegal to Bergen, and of the former from Drontheim to Hammerfest. At one time, the winter herrings had abandoned the Norwegian coast, but since 1808 they have been regular in their annual visit.

The lobster fishery is now scarcely of sufficient importance to merit a separate notice. For the last three years since 1841, the annual average exports have not much exceeded 500,000, and as the consumption in the country has not increased it is evident that this branch of the fisheries is on the decline. It is pursued along the

coast from the Swedish frontiers to Christiansand, and the produce is almost exclusively reserved for the London market; lobster smacks regularly running between the Norway coast and London to receive them.

For the last seven years, since 1837, the annual average quantities of smoked salmon exported has only been 5,455 lbs., and of this not above 200 lbs. has been sent annually to England; the chief market being Denmark.

In Part XII., p. 112, of Mr. Macgregor's Commercial Tariff, it is stated that for several years salmon formed an article of export, but of late years the catch has not exceeded the demand for home consumption. The decrease in this valuable article has been attributed to the swarms of sharks that have of late years retained possession of the banks lying off the coasts. This fact was only accidentally discovered in 1841, by the circumstance of two small vessels being fitted out as an experiment to try the bank fishery for cod, which had not been previously attempted; when instead of finding the object they were in search of, these voracious animals were met with. In 1842 eight vessels were fitted out from Hammerfest, expressly for the purpose of shark fishing, and no less than 20,000 were taken without any apparent diminution of their number. The shark oil produced was about 1,000 barrels.

The total value of these fisheries is estimated at rather more than 3 million of specie dollars, or £653,000, annually.

The Metal Trade is of a limited nature, although full 7-8ths of the produce of the copper and cobalt mines is exported: the latter in the shape of smalts and oxide of cobalt; the former in cake, sheet, and rosette copper.

Equally as much iron, in various shapes, is imported into the country as is exported. Many of the iron mines cannot be worked to advantage beyond what the local consumption may call for.

The following tables show the quantity of metals, and minerals of metals, exported in each of the years 1835 and 1841, and the annual average thereof during the seven years from 1835 to 1841.

YEARS.	Chrome Iron.	Chrome Salt.	Cobalt Ores.	Cobalt Smalts.	Cobalt Oxide.
	lbs. avs.	lbs.	lbs.	lbs.	lbs.
1835	....	2,520	....	88,480*	255,920
1838	505,120	....	....	....	....
1841	884,389	154,378	33,660	123,056	197,924
Average 1835 to 1841	$\left. \begin{matrix} (38) \\ \text{to} \\ (40) \end{matrix} \right\} 878,727$	60,189	....	1,016,715	259,841
Per centage proportions of the average compared with 1835	$\left. \begin{matrix} \\ \end{matrix} \right\} +73 \text{ per cent.}$	$\left. \begin{matrix} \\ \end{matrix} \right\} +2,250 \text{ per cent.}$	....	$\left. \begin{matrix} \\ \end{matrix} \right\} +1,050 \text{ per cent.}$	$+1\frac{1}{2} \text{ per ct.}$

* The quantities of cobalt smalts exported in 1835 and 1841 only average about $\frac{1}{10}$ of the same for each of the intermediate years.

YEARS.	COPPER.				IRON.	
	Old.	Sheet.	In Blocks.	Ore.	Wrought.	Cast.
1835	lbs.	lbs. 5,280	lbs. 1,044,120	lbs. 1,534	Tons. 2,155	Tons. 206
1841	4,850	75,379	1,233,931	....	2,184	105
Average, 1835 to 1841	....	44,334	1,189,784	1,272	2,410	126
Per centage pro- portions of the average com- pared with 1835	....	+ 740 } per cent.	+14 per ct.	-21 per ct.	+ 12 } per cent.	- 63 } per ct.

The results here set forth plainly prove that the exports of the Mineral resources of Norway have been, with but few exceptions, materially augmented of late years.

Of the total quantities exported in the year 1841 the chief proportion was sent to Great Britain. The total value of metals produced in Norway, including the produce of the Kongsberg silver mines, which amounts to full 1-5th of the whole, is estimated at about one million specie dollars, or £217,500.

We will now briefly notice the Fur Trade, although it may be looked upon more in the light of a transit trade, than as part of the national industry. The production of the country has dwindled down to the catch of a few thousand fox skins, a few hundred bear, wolf, otter, and seal skins, with some of the smaller animals, annually. These are all sent to Finmark for barter with the Russians, with whom a lively traffic in these articles is carried on; chiefly however with otter and fox skins, purchased in London at the sales of the Hudson's Bay Company. From London the skins are first sent to Hamburgh, where they are purchased by the Norwegian trader, who ships them to Finmark, whence the greater part of the otter and fox skins, which form 19-20ths of the fur trade, are conveyed to Moscow, and there sold to the caravan traders. The skins are ultimately taken to Këachta to be bartered with the Chinese for tea.

The value of these furs, including others of minor importance, does not exceed 100,000 specie dollars annually, or £21,700.

The value of the total exports may therefore be estimated as follows:—

Timber	about 2,000,000	specie dollars, or	£435,000
Produce of the Fisheries	„ 3,000,000	„	653,000
Produce of the Mines	„ 1,000,000	„	217,500
Fur	„ 100,000	„	21,700
	6,100,000		1,327,200
Freights by Norwegian vessels ..	„ 1,500,000	„	326,000
Total	7,600,000	„	1,653,200

The value of the freights is added to the estimated value of the exports, as the great bulk of the articles exported are conveyed by Norwegian shipping; consequently the advantage to that extent remains

solely with the native trader and shipowner. From the official returns it has been estimated that the gross amount of freights earned by the transport of native produce is fully equal to 1,666,000 specie dollars, or £362,200.

We will now proceed to consider the Import Trade of Norway, and it will be seen that the principal articles imported are salt, grain, colonial produce, manufactures, tea, sugar, brandies, wines, provisions, hemp, flax, cotton, wool, glass, and earthenware.

Salt is received as return cargoes from Spain, Portugal, France, and Sicily, and occasionally from Liverpool.

Grain comes from Denmark, Prussia, Russia, and Sweden.

Colonial produce is sent from Hamburg, Altona, Holland, France, Denmark, and Great Britain.

Provisions are imported from Denmark, Russia, Hanover, and Holland; and raw cotton, cotton twist, manufactured goods, glass, serge stuffs, and earthenware, are supplied by Hamburg, Altona, and Great Britain.

The following short abstract from Mr. Crowe's tables of the articles imported into Norway from the several countries, may perhaps be some guide to the extent and nature of the different branches of the Norwegian import trade.

The trade of Denmark with Norway was stripped of its magnitude and importance when the two countries were separated by the Congress of Vienna, and Denmark was consequently deprived of many commercial advantages which she had formerly enjoyed in her relations with Norway.

The trade in grain, provisions, and colonial produce, was exclusively in the hands of the Danes; and the merchants of Copenhagen were in fact the bankers of Norway, and as such controlled nearly the whole of her commerce, not only that which related to Denmark, but also the trade with the rest of Europe. The Exchange at Copenhagen was the mart where most of the commercial affairs of Norway were arranged.

The simple interchange of their superfluous produce now forms the trade between the two countries, but it is yet of an extent to be of importance to Denmark.

Instead of inserting in this paper the entire tables of the import trade with the several countries, we shall only abstract the quantities of the most important articles.

The imports from Denmark in each of the years 1835, 1838, and 1841, appear in the next table.

By this table it will be seen that the trade of Denmark, in these periods, has for the most part suffered a gradual decline. Grain, the demand for which fluctuates of course with Norwegian harvests and provisions, form the most important features of the trade, and appear to be likewise the most prosperous.

According to the most careful official estimate the imports are valued at rather more than one million and a-half specie dollars, or £326,000.

ARTICLES.	1835.	1838.	1841.
Coffee lbs.	97,630	77,418	64,706
Cordage "	19,082	15,474	18,273
Flax "	20,813	8,786	7,273
Hemp "	25,260	4,340	1,190
Grain :—			
Barley qrs.	191,387	230,272	217,501
Wheat and Flour "	18,049	10,437	7,453
Rye "	93,994	67,241	85,171
Malt "	13,597	13,869	16,362
Leather lbs.	285,822	97,230	111,908
Linens "	91,636	87,947	32,646
Provisions, viz. :—			
Cheese "	244,913	316,457	233,929
Butter "	932,561	1,465,949	1,918,511
Pork "	410,126	528,546	639,702
Beef "	358,262	391,494	358,138
Tallow "	64,582	62,120	87,108
Wool "	...	71,434	139,623
Woollens "	77,929	37,633	41,702

In the same ratio as the intercourse with Denmark has declined, has the trade with Sweden increased, and a lively intercourse by sea and land has sprung up.

The quantities of the principal articles imported by sea from Sweden in each of the years 1835, 1838, and 1841, are given in the following table.

ARTICLES.	1835.	1838.	1841.
Alum lbs.	30,961	8,135	39,661
Bricks No.	381,787	458,629	783,459
Iron and Steel tons	322	1,049	717
Leather lbs.	76,761	5,965	629
Paper "	14,228	45,430	47,669
Staves sp. d.	59,840	75,894	95,550
Tobacco lbs.	157,257	105,435	83,050
Tar barrels	2,761	3,134	4,706
Oats qrs.	5,241	76	9,348
Butter lbs.	80,675	116,776	117,905
Linens "	95,907	105,516	93,036
Woollens "	11,453	16,233	18,280

No particular results are to be deduced from this statement, and it affords but an imperfect idea of the commercial intercourse that exists between Sweden and Norway, as quantities of manufactured and other goods find their way by land, and of which no returns can be obtained.

The value of the imports that pass through the customs does not exceed one million specie dollars, or £217,500.

The trade between Norway and Russia is of a two-fold character: the first with the Baltic is simple, and similar to that carried on between Norway and Prussia; the second, with the northern provinces of Norway, the White Sea, and Finmark, is of a more complicated

and peculiar character. These places are mutually dependent on each other for the sale of the superfluous produce of the fisheries, and for the most important articles of food. It is also of great political importance to Russia, and peculiar privileges and immunities are granted by that power to that particular trade; and by virtue of treaties with Sweden and Norway, Russia has secured to herself exclusive immunities, not enjoyed by other nations.

No correct return of the extent of the trade with Russia can be given, as the Russians are not bound to unload at the established ports like other foreigners. The following figures are taken from a table compiled from official returns of imports, but it may be safely assumed that not one-half of the Russian produce imported appears in these returns.

ARTICLES.	1835.	1838.	1841.
Candles, Tallow lbs.	40,230	23,756	48,142
Feathers "	59,490	15,777	61,177
Flax Seed barrels	905	3,169	1,130
Rye and Rye Meal qrs.	17,860	66,665	19,014
Hemp lbs.	2,606,520	2,037,719	3,024,017
Hides "	137,151	56,047	181,081
Linens "	487,161	269,049	440,739
Oakum "	24,160	8,398	46,142
Oil, Cod and Liver quarts	15,488	32,704	62,268
Tallow lbs.	3,678	1,586	35,081
Tar barrels	213	312	109
Twine lbs.	1,280	320	7,520
Rope "	155,784	112,829	253,434

As it has been before remarked, these figures are, in all probability, far from exhibiting the extent of the actual imports from Russia; they are, however, given here as some guide to the nature of the transactions.

The trade between Norway and Prussia is confined to a few articles of mutual necessity; the following were the principal imports in each of the years 1835, 1838, and 1841.

ARTICLES.	1835.	1838.	1841.
Flax.... lbs.	10,531	6,520	18,384
Barley qrs.	11,488	46,440	9,195
Malt "	2,411	7,920	4,950
Rye.... "	36,946	98,340	89,572
Hemp lbs.	17,193	1,856	17,369
Oil: Hemp, &c. quarts	....	19,184	23,692
Provisions lbs.	2,427	28,510	25,891
Soap "	6,780	7,965	25,326

A more extensive import trade is carried on by Norway with Altona, Hamburgh, and the German States, than with any other country; no less than 150 articles are specified in the table given by Mr. Consul

Crowe, and of the greater part of these large quantities were imported. The following table is a short abstract of the most prominent imports, in 1835, 1838, and 1841.

ARTICLES.	1835.	1838.	1841.
Almonds lbs.	36,342	47,964	39,086
Alum "	17,865	9,849	13,121
Aniseed, &c. "	126,976	110,782	84,744
Bark, Medical "	11,258	11,572	12,899
Brimstone "	19,429	26,956	20,189
Bricks No.	430,498	398,479	888,576
Cotton Wool lbs.	35,962	50,332	57,348
— Twist "	57,392	96,977	120,865
— Manufactures "	214,562	210,513	394,103
Coffee "	1,694,229	2,242,387	3,609,812
Dye-Woods "	492,083	215,313	257,299
Fruit, dried "	292,503	355,049	359,791
Earthenware "	37,112	22,081	20,935
Furs.... skins	21,047	26,923	35,817
Glass lbs.	63,929	115,771	127,201
Gums "	15,570	10,494	12,973
Barley qrs.	9,653	8,827	2,452
Rye.... "	10,875	7,209	6,082
Hides lbs.	56,104	123,693	197,558
Hops "	80,795	105,287	93,123
Copperas "	42,297	39,715	42,844
Indigo "	10,798	9,467	17,229
Iron Manufactures.... "	92,569	95,990	118,697
Linens "	147,021	149,074	214,804
Molasses.... "	334,008	514,320	493,915
Paints and Colours.... "	67,288	88,091	102,162
Paper "	37,156	139,394	34,633
Potash "	12,703	18,014	16,027
Rosin "	24,759	33,085	39,469
Salt tons	110	115	100
Saltpetre.... lbs.	12,101	26,379	25,459
Silks "	8,261	10,457	10,969
Soap "	120,364	100,191	319,949
Spices "	54,146	69,323	65,301
Starch "	22,954	29,415	36,120
Sago "	28,187	32,993	36,048
Sugar, Raw "	1,969,390	1,574,203	2,027,894
— Refined .... "	....	1,307,142	1,561,882
Tea "	54,354	55,116	49,025
Tobacco "	1,217,638	1,075,699	1,709,551
Rice "	287,106	331,494	374,075
Wine quarts	134,172	136,521	140,303
Woollen Yarn lbs.	9,683	2,850	3,550
Woollens.... "	186,495	211,080	275,118
Zinc.... "	7,530	22,915	18,132

A glance at the preceding table will at once establish the fact of the importance and prosperous condition of trade between Altona and Hamburgh and Norway. A great and continual increase has taken place since the year 1835, in the imports of the following articles:—bricks, cotton wool, and cotton manufactures, colonial produce (particularly coffee,) glass, hardwares, linens, silks, soap, tobacco, rice, and woollens.

The value of the imports is not given.

The quantities of the principal articles imported into Norway from Holland, in 1835, 1838, and 1841, appear in the next table.

ARTICLES.		1835.	1838.	1841.
Bricks	No.	1,556,453	919,551	1,894,285
Cotton Wool	lbs.	....	13,516	38,865
Coffee	"	221,992	69,529	81,654
Dye-Woods	"	42,203	16,524	20,620
Earthenware	"	99,833	55,634	77,192
Flax	"	313,981	182,158	316,727
Glass	"	11,893	18,657	49,211
Hemp	"	34,355	16,237	9,420
Hoops	No.	4,695,492	1,326,025	6,073,584
Iron, Cast	lbs.	373,179	252,365	354,637
Leather	"	32,058	17,443	49,465
Molasses	"	15,101	7,464	33,502
Oils	quarts	122,163	112,769	157,853
Paints	lbs.	62,417	60,910	60,543
Cheese	"	202,775	263,700	251,130
Rice	"	31,465	37,791	46,007
Sugar, Raw	"	55,851	46,000	37,444
— Refined	"	380,216	456,189	556,680
Tobacco	"	68,365	51,750	61,651
Steel	"	23,130	22,204	36,903

This statement does not show any sign of increased activity in the trade with Holland. Bricks, glass, hoops, and refined sugar exhibit an increase, but most of the other articles have retrograded.

The next table exhibits the quantities of the principal articles imported into Norway from Great Britain, in 1835, 1838, and 1841.

ARTICLES.		1835.	1838.	1841.
Brass Wares	lbs.	10,035	10,917	16,036
Cotton Wool	"	30,536	64,926	126,419
— Twist	"	64,721	246,959	594,678
— Manufactures	"	83,876	86,200	226,213
Coffee	"	226,490	84,716	185,979
Coals	tons	8,043	21,523	27,546
Dye-Woods	lbs.	89,442	43,231	88,354
Earthenware	"	548,891	605,720	800,047
Copperas	"	74,550	74,848	125,438
Flax	"	24,994	83,881	97,573
Gunpowder	"	38,569	47,537	74,347
Hides	"	15,377	....	51,571
Fire Clay	"	250,650	330,000	260,000
Iron, Wrought	tons	205	304	287
— Cast	"	89	53	113
Lead	lbs.	53,794	86,912	111,039
Linens	"	21,490	54,124	46,232
Paints	"	193,515	59,405	249,974
Porter	quarts	28,791	24,758	43,374
Rice	lbs.	28,673	22,349	14,742
Salt	tons	1,415	3,256	1,727

ARTICLES.	1835.	1838.	1841.
Saltpetre lbs.	54,387	67,241	73,558
Shot, patent "	45,411	46,257	56,939
Soap "	181,064	30,489	184,169
Sugar "	177,179	88,908	179,452
Tin Wares "	9,253	8,869	78,396
Thread "	14,866	8,334	31,942
Tobacco "	437,402	170,379	409,791
Woollens.... .. "	75,390	59,601	106,695
Steel "	44,550	69,686	137,823

A considerable increase has taken place in many of the imports from Great Britain, such as in cotton wool, cotton twist, and manufactures, earthenware, gunpowder, lead, and woollens; but on comparing the trade in manufactured goods and colonial produce, between Great Britain and Norway, and between Altona and Hamburgh and Norway, it will be found that we fall far short of the latter. Since, however, says Mr. Macgregor in his *Commercial Tarifs*, part xii., the establishment of a regular communication once a week by Hull steamers, between that port and Christiansand, considerable quantities of colonial produce and of British manufactures are imported that way into Norway; and it is hoped that the direct trade with England through that channel will increase, and supersede, in some degree, the indirect and costly traffic by way of Hamburgh and Altona.

Our trade with Norway will most probably receive an impetus from the recent modifications of our tariff; and should alterations be made in the duties now levied in that country on our cottons, woollens, and hardware, the improvement would no doubt be rapid and lucrative, and the trade might again be drawn into its legitimate and direct course.

The imports from France, although, generally speaking, they have increased of late years, are not as yet of much consequence. The exports of Norwegian produce form the principal trade with that country. The following were the principal articles imported from France, in 1835, 1838, and 1841.

ARTICLES.	1835.	1838.	1841.
Brandy quarts	698,956	675,652	635,760
Coffee lbs.	84,245	97,497	185,979
Corks, cut "	16,214	27,734	28,504
Flax "	10,786	59,994	63,390
Glass "	13,641	19,624	14,460
Leather "	101,636	93,649	175,566
Molasses. "	612,253	390,105	801,188
Paper "	9,598	18,824	28,900
Dried Fruit "	89,815	29,553	114,294
Rice.... .. "	10,788	3,395	17,671
Salt tons	9,485	11,021	11,701
Sugar, Refined lbs.	51,172	59,901	25,883
Soap "	1,420	3,109	7,724
Tartar "	9,870	2,283	8,664
Turpentine "	10,020	2,020	8,760
Vinegar quarts	104,688	87,060	46,884
Wine "	458,232	256,828	331,180

The greatest advance appears to have been made in the articles of coffee, cut corks, flax, glass, leather, molasses, paper, dried fruits, and soap.

Since the separation of Belgium from Holland a direct intercourse has been established with Norway, which promises well, and will probably become extensive. At present the imports from Belgium are confined to a few articles, such as,

	1835.	1838.	1841.
Bricks No.	115,340	61,359	98,576
Coffee lbs.	7,083	18,067	18,210
Cotton Wool .... "	....	7,900	14,261
Flax "	41,035	47,688	131,424
Glass "	4,692	12,520	14,813
Hoops No.	18,750	....	244,424
Leather lbs.	4,728	262	59,563
Paints "	91	689	9,960
Rice "	685	5,350	28,740
Sugar, Refined "	75,675	235,502	586,638
Soap "	4,728	2,217	19,036

The trade with Spain, Portugal, and the Mediterranean states is limited, and is confined to the produce of the respective countries. The principal imports were :

	1835.	1838.	1841.
Cork lbs.	81,996	8,439	71,584
Figs.... "	5,445	8,019	15,901
Oranges "	30,523	101,551	149,541
Raisins "	4,264	11,241	18,192
Salt tons	33,100	37,426	43,399
Wine quarts	46,840	40,385	164,425

We may here shortly observe that a very cursory examination of the foregoing abstracts of the imports will be sufficient to acquaint us with the increased consumption of articles of luxury, and this fact may be taken as a fair criterion of the growing prosperity of the country.

It only now remains for us to take a short review of the Shipping of Norway.

There appear to have been

In 1817	1,692	vessels of	175,920	tons.
„ 1827	1,866	„	143,470	„
„ 1837	2,373	„	206,122	„
And in 1841	2,509	„	266,801	„

employing rather more than 15,000 men.

The Norwegian flag is to be met with in all parts of the world competing with British shipping in the carrying trade. As a proof of the extent and success with which they have appropriated to themselves a portion of the carrying trade of the north of Europe, it need only be stated that in 1838, 249 Norwegian vessels of 64,784 tons,

cleared from Swedish and Finnish ports in the Baltic with cargoes for foreign ports. And 18,733 tons of Norwegian shipping was employed in carrying freight from one foreign port to another.

The vessels of Norway begin to offer a serious competition to our own shipping in foreign ports, and it will be found that they not only rank next to the British, but in many places command a preference. And this close competition and preference is not to be traced to any peculiar encouragement offered by the Norwegian Government, or to any superior economy which enables the Norwegians to sail their vessels at a cheaper rate than British vessels, but chiefly to the superior class of masters which the laws of Norway have created. The Norwegian Government, by wise regulations, have, in addition to the practical test required, made certain intellectual acquirements obligatory on those who aspire to be masters of vessels; and the result has been that an intelligent and respectable class of masters has been formed, which has created for their marine a confidence and respect, which our own appears to be losing; for our ordinary class of masters have at least remained stationary, if they have not absolutely retrograded.

These are valuable observations on the improvement of the commercial marine of Norway, and no doubt much of the competition now offered, in foreign ports, to our shipping, by the Norwegians, Prussians, Austrians, and Americans, might be successfully encountered and overcome, if the British Government would follow the example of the Norwegian, and establish a sound practical and intellectual examination for the officers of our mercantile shipping.

For the last ten years, from 1833, the annual average number of vessels that cleared from Norway to Denmark was 2,136 of 79,352 tons, and from Denmark to Norway 2,262 vessels of 91,275 tons.

There were dispatched from Altona and Hamburgh to Norway

In 1835	Vessels of 12,990 tons, of which 92,511 tons were Norwegian.
„ 1838	„ 14,365 „ 10,359 „
„ 1841	„ 19,997 „ 16,136 „

From Norway to the several ports of Holland the number and tonnage of cargoes cleared were :

In 1835	898 cargoes of 135,112 tons, of which 79,131 tons were Norwegian.
„ 1838	861 „ 133,395 „ 84,952 „
„ 1841	966 „ 139,030 „ 92,191 „

The chief proportion of goods exported to our own country is conveyed in Norwegian vessels, as the following figures showing the number and tonnage of cargoes shipped from Norway to Great Britain will testify.

In 1835	787 cargoes of 115,136 tons, of which 103,607 tons were Norwegian.
„ 1838	917 „ 134,048 „ 125,048 „
„ 1841	831 „ 135,842 „ 125,502 „

And the following number and tonnage of vessels belonging to Norway brought cargoes from foreign ports to Great Britain.

In 1835	138 vessels of 37,726 tons.
„ 1838	139 „ 33,536 „
„ 1841	151 „ 39,296 „

A large amount of shipping is employed in the trade between Nor-

way and France, as may be seen by the following number and tonnage of vessels sent from Norway.

		Tons.			Tons.
In 1835,	730 vessels of	124,472	of which	703 vessels of	119,837 were Norwegian.
„ 1838,	860 „	141,227	„	797 „	132,712 „
„ 1841,	829 „	148,203	„		139,842 „

Independent of this important amount of Norwegian shipping employed between the two countries, about 31,200 tons are annually engaged in the carrying trade between France and other foreign countries.

In further illustration of the increased employment of the Norwegian shipping in the direct and carrying trade with foreign countries, we have inserted the following statement of the number and tonnage of Norwegian vessels employed in the foreign trade with each of the principal countries in the two years 1838 and 1841.

Countries at which the Vessels arrived.	1838.						1841.					
	From Norway.		From other Countries.		TOTAL.		From Norway.		From other Countries.		TOTAL.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Sweden	350	49,257	169	52,939	519	102,196	487	68,801	182	60,502	669	129,303
Russia	116	13,609	67	13,905	183	27,514	121	15,250	72	19,643	193	34,893
Prussia	203	12,228	36	7,748	289	19,976	281	19,977	61	6,796	342	25,863
Denmark	803	25,429	63	4,360	866	29,789	1,118	37,784	138	9,188	1,256	46,972
Altona and Ham- burgh	84	10,359	64	5,096	148	15,455	146	16,136	85	14,164	231	30,300
Holland	356	84,952	52	10,563	408	95,515	359	92,191	78	20,164	437	112,355
Great Britain....	730	125,048	139	33,587	869	158,635	731	125,502	155	40,727	886	166,229
France	797	132,712	171	35,350	968	168,062	760	139,482	207	45,775	967	185,257
Belgium	64	8,538	63	15,153	127	23,691	33	4,072	69	16,270	102	20,972
Other Countries..	86	12,209	188	36,965	274	49,174	102	13,562	188	44,573	290	58,135
Total.....	3,589	474,341	1,062	215,666	4,651	690,007	4,138	532,487	1,235	277,792	5,473	810,279

Thus the total tonnage of the shipping employed in the foreign trade in 1838 was 690,007; in 1841 it amounted to 810,279, an increase over the year 1838 of 120,272 tons, or $17\frac{1}{2}$ per cent.

Of the 810,279 tons in 1841, 532,487 tons were employed direct between Norway and foreign countries; whilst the remaining 277,792 tons were solely engaged in the carrying trade between one foreign country and another, against 215,666 tons thus employed in 1838, which shews that in 1841 there was an important increase of 62,126 tons, or $28\frac{3}{4}$ per cent., in this division of their shipping trade. The figures in this statement do not, of course, represent the actual number and tonnage of vessels belonging to the Norwegian commercial marine, as many vessels perform two and three voyages in the course of the year. The real extent of the shipping has been stated in a previous page.

The Norwegian Government by attending to the skill and activity of their pilots, erecting beacons, and preparing charts, are doing much to facilitate the navigation of their coasts, and to make them with their thousand fiords and harbours, more accessible than they have been hitherto.

On the Duration of Life among the English Gentry, with additional observations on the Duration of Life among the Aristocracy. By WILLIAM A. GUY, M.B., Cantab., Fellow of the Royal College of Physicians, Professor of Forensic Medicine, King's College, Physician to King's College Hospital, Honorary Secretary to the Statistical Society, &c.

[Read before the Statistical Society of London, 19th January, 1846.]

In a recent number of the journal of the Statistical Society*, I examined the duration of life among the male members of the families of the Peerage and Baronetage of the United Kingdom; and I now proceed to extend that inquiry to the male members of the families of the English Gentry, and to the females of the Upper Classes. In order, also, to present a more complete view of the duration of life among the higher classes, I shall extend the comparison so as to embrace the members of Royal Houses. The materials for the proposed comparison have been obtained from two distinct sources—the county histories of Northampton, Cheshire, Berkshire, and Surrey, and the history of Leeds†, on the one hand, and the *Annual Register*, on the other. The facts obtained from the county histories consist of the ages at death of all males and females dying aged 21 and upwards, arranged in three classes:—1. The Male Members of the Families of the Gentry, 2. The Females of the Upper Classes, including the Peerage and Baronetage as well as the Gentry, and 3. The Members of the several Professions. The ages at death are taken partly from the pedigrees of the county families and partly from mural tablets.

The comparison which I am about to institute between the results obtained from these sources and from the Peerage and Baronetage is open to several objections, of which the most obvious are the limited number of county and civic histories employed, the admission into that number of one of our large manufacturing towns, and the comparatively ancient date of the histories of Berkshire and Surrey. A more careful and more extensive choice of county histories might have furnished unexceptionable materials for the comparison; but as a still more satisfactory and accessible record of facts presents itself in the shape of the obituaries contained in the successive numbers of the *Annual Register*, I have deemed it a better economy of time, to present first the results obtained from the county and civic histories, with all the objections attaching to them, and then a separate and distinct comparison drawn from the facts gleaned from the *Annual Register*.

County Histories.

The following table presents the numbers dying at each age of the three classes—gentry (males); females of the upper classes; and professional persons‡. The number of the first class is 2455, of the second 1872, and of the third 699.

* March, 1845.

† Baker's Northampton; Ormerod's Cheshire; Ashmole's Berkshire; Aubrey's Surrey; and Whitaker's Leeds.

‡ The professional persons consist of 565 clergy, 57 lawyers, (chiefly barristers,) 30 medical men, (chiefly physicians,) 33 officers of the army, 6 of the navy, and 8

TABLE I.

Age	Gentry.	Females.	Professions.	Age.	Gentry.	Females.	Professions.
21	20	23	....	64	51	21	22
22	15	28	....	65	52	26	22
23	39	14	....	66	60	30	25
24	27	34	....	67	52	33	22
25	40	43	....	68	44	37	23
26	24	22	....	69	50	38	16
27	22	25	....	70	64	54	17
28	22	24	....	71	62	32	13
29	21	26	....	72	62	52	16
30	32	15	....	73	48	38	23
31	18	22	2	74	44	31	15
32	30	22	2	75	44	30	16
33	20	34	5	76	44	33	20
34	28	17	2	77	44	46	14
35	35	28	8	78	35	35	14
36	32	25	8	79	44	30	8
37	28	39	3	80	31	39	16
38	26	26	1	81	24	17	12
39	26	23	8	82	25	37	12
40	39	29	8	83	23	22	9
41	22	17	5	84	26	21	9
42	22	22	7	85	12	16	4
43	17	16	9	86	17	33	1
44	32	14	13	87	13	11	4
45	34	19	8	88	15	12	7
46	23	22	7	89	10	11	4
47	34	22	4	90	7	21	7
48	28	25	10	91	4	3	1
49	41	18	12	92	7	6	3
50	33	19	11	93	2	3	0
51	25	16	5	94	1	2	0
52	48	25	5	95	4	1	2
53	37	16	13	96	3	6	0
54	53	19	13	97	2	0	0
55	35	22	19	98	0	2	1
56	49	21	13	99	2	0	1
57	50	23	16	100	3	0	0
58	50	18	22	101	0	0	....
59	39	25	13	102	1	0	....
60	42	40	17				
61	46	29	12	106	....	....	1
62	47	29	11				
63	72	47	26	112	....	....	1

In the following tables the deaths among the gentry, females, and professions, are given for periods of five and ten years respectively, and a column is added presenting the per centage proportions at each quinquennial and decennial period. The per centage proportions are omitted in the case of the members of professions, in consequence of the enumeration beginning among that class at a later age.

members of other professions. In consequence of the great preponderance of the clergy, the results differ little from those which could have been obtained if members of that profession had been taken separately. The mixed results are merely used as a rude standard of comparison.

TABLE II.

Age.	Number of Deaths.			Per Cent.	
	Gentry.	Females.	Professions.	Gentry.	Females.
21 — 25	141	142	....	5·74	7·58
26 — 30	121	112	....	4·93	5·98
31 — 35	131	123	19	5·34	6·57
36 — 40	151	142	28	6·15	7·58
41 — 45	127	88	42	5·17	4·70
46 — 50	159	106	44	6·48	5·66
51 — 55	198	98	55	8·03	5·23
56 — 60	230	127	81	9·37	6·78
61 — 65	268	152	93	10·92	8·12
66 — 70	270	192	103	11·00	10·26
71 — 75	260	183	83	10·59	9·78
76 — 80	198	183	72	8·07	9·78
81 — 85	110	113	46	4·48	6·04
86 — 90	62	88	23	2·53	4·70
91 — 95	18	15	6	0·73	0·80
96 — 100 and upwards	11	8	2	0·45	0·43

TABLE III.

Age.	Number of Deaths.			Per Cent.	
	Gentry.	Females.	Professions.	Gentry.	Females.
21 — 30	262	254	....	10·67	13·56
31 — 40	282	265	47	11·49	14·15
41 — 50	286	194	86	11·65	10·36
51 — 60	428	225	136	17·40	12·01
61 — 70	538	344	196	21·92	18·38
71 — 80	458	366	155	18·66	19·56
81 — 90	172	201	69	7·01	10·74
91 — 100 and upwards	29	23	8	1·18	1·23

I am indebted to Mr. Neison's kindness for the following life table, constructed from the foregoing data. (Table IV.)

On carefully comparing the columns of this Life Table it appears, that during the three years 20, 21, and 22, the expectation of life among the gentry is somewhat higher than among the females of the upper classes, but that from 23 to 79, both inclusive, the reverse obtains, while after 79, till the end of life, the expectation among the gentry again exceeds that of females. The difference in favour of the female, at the age of 50, somewhat exceeds two-and-a-half years; on the other hand, the expectation for males at 90 years of age exceeds that of females by more than one year. On comparing the gentry with professional men, the expectation will be found to be in favour of the latter class up to the 62nd year, after which age it gradually becomes more favourable to the gentry, and continues so to the end of life.

TABLE IV.

Expectation of Life in the Male Members of the families of the English Gentry, in the Females of the Upper Classes, and in Professional Men.

Age.	Gentry.	Females.	Professions.	Age.	Gentry.	Females.	Professions.
18	38·4760	....	....	62	11·8169	13·4157	11·8257
19	37·9029	....	....	63	11·3563	12·8553	11·3511
20	37·3281	36·9833	....	64	10·9102	12·3097	10·8929
21	36·7516	36·5345	....	65	10·4771	11·7812	10·4559
22	36·1734	36·0872	....	66	10·0558	11·2730	10·0392
23	35·5908	35·6414	....	67	9·6452	10·7885	9·6458
24	35·0016	35·1879	....	68	9·2463	10·3241	9·2723
25	34·4031	34·7213	....	69	8·8606	9·8761	8·9146
26	33·7928	34·2365	....	70	8·4901	9·4407	8·5678
27	33·1680	33·7279	....	71	8·1371	9·0136	8·2258
28	32·5342	33·2015	....	72	7·8045	8·5905	7·8805
29	31·8890	32·6630	....	73	7·4918	8·1739	7·5328
30	31·2412	32·1186	33·9479	74	7·1983	7·7667	7·1856
31	30·5923	31·5746	33·1335	75	6·9235	7·3730	6·8428
32	29·9456	31·0366	32·3156	76	6·6665	6·9978	6·5097
33	29·3022	30·5100	31·4942	77	6·4252	6·6476	6·1936
34	28·6630	29·9921	30·6745	78	6·1998	6·3190	5·8946
35	28·0289	29·4861	29·8602	79	5·9897	6·0077	5·6120
36	27·4012	28·9945	29·0542	80	5·7917	5·7070	5·3449
37	26·7807	28·5181	28·2597	81	5·6000	5·4064	5·0902
38	26·1626	28·0467	27·4779	82	5·4041	5·0893	4·8423
39	25·5421	27·5683	26·7098	83	5·2038	4·7578	4·6039
40	24·9143	27·0708	25·9565	84	5·0003	4·4162	4·3750
41	24·2743	26·5415	25·2193	85	4·8464	4·0716	4·1546
42	23·6179	25·9681	24·4991	86	4·5994	3·7369	3·9439
43	22·9503	25·3607	23·7923	87	4·4209	3·4341	3·7441
44	22·2768	24·7297	23·0942	88	4·2644	3·1676	3·5551
45	21·6026	24·0862	22·3998	89	4·1320	2·9433	3·3741
46	20·9333	23·4415	21·7059	90	4·0231	2·7654	3·2027
47	20·2737	22·8059	21·0095	91	3·9244	2·6283	3·0294
48	19·6243	22·1756	20·3130	92	3·8055	2·4780	2·8247
49	18·9856	21·5469	19·6190	93	3·6486	2·5412	2·5890
50	18·3584	20·9151	18·9298	94	3·4358	2·3592	2·3241
51	17·7884	20·2764	18·2460	95	3·1571	2·0879	2·0256
52	17·1875	19·6271	17·5711	96	2·8333	1·7411	1·7037
53	16·5984	18·9717	16·9074	97	2·5139	1·4444	1·4117
54	16·0212	18·3154	16·2587	98	2·2019	1·1346	1·1315
55	15·4545	17·6634	15·6285	99	1·9035	·8200	·8333
56	14·8982	17·0199	15·0205	100	1·6333	·5000	·5000
57	14·3524	16·3893	14·4385	101	1·3888	....	....
58	13·8177	15·7716	13·8796	102	1·1666	....	....
59	13·2953	15·1668	13·3409	103	·9545	....	....
60	12·7866	14·5718	12·8201	104	·7500	....	....
61	12·2932	13·9885	12·3158	105	·5000	....	....

I now proceed to compare the duration of life among the gentry and professional persons with that of the peerage and baronetage. It will be sufficient to make this comparison for every quinquennial period, as is done in the following table. The duration of life among females of the higher classes is also given.

TABLE V.

Age.	Peerage and Baronetage	Gentry.	Profes- sions.	Females.	Age.	Peerage and Baronetage	Gentry.	Profes- sions.	Females.
20	38·5	37·3	....	37·0	65	10·2	10·5	10·5	11·8
25	34·6	34·4	....	34·7	70	8·2	8·5	8·6	9·4
30	30·9	31·2	33·9	32·1	75	6·5	6·9	6·8	7·4
35	27·4	28·0	29·9	29·5	80	5·1	5·8	5·3	5·7
40	24·5	24·9	26·0	27·1	85	4·0	4·8	4·2	4·1
45	20·9	21·6	22·4	24·1	90	3·4	4·0	3·2	2·8
50	17·9	18·4	18·9	20·9	95	2·4	3·2	2·0	2·1
55	15·2	15·5	15·6	17·7	100	1·2	1·6	0·5	0·5
60	12·6	12·8	12·8	14·6					

On a careful comparison of the several columns of this table it will appear, that with the exception of the ages of 20 and 25, the gentry enjoy a better expectation of life than the aristocracy; and that the same is true of professional persons up to 85 years of age, after which time the aristocracy enjoy a slight advantage. The females of the higher classes, at 20 years of age, have a lower expectation of life than either the aristocracy or gentry, but from 25 to 75 years of age inclusive, the expectation for females is more favourable than that for either of the other classes. At 90 years of age, again, the balance turns in favour of the male members of the aristocracy, and at 80 in favour of the gentry. The expectation for professional men, as compared with that for females is higher at 30 and 35 years, and after 80, but in the intermediate period it is in favour of females. From 40 to 70 years of age inclusive, the four classes stand, in respect of the expectation of life, beginning with that which enjoys the most favourable expectation, in the following order:—females, professional men, gentry, aristocracy. If the comparison is limited to males, and from 30 to 70 years inclusive, they will stand in the following order:—professional men, gentry, aristocracy; from 75 to 85 inclusive;—gentry, professions, aristocracy; and from 90 to 100 inclusive:—gentry, aristocracy, professions. If the clergy, who form the large majority of the class, designated “professions,” had been taken separately, there is no doubt that they would have presented a still more favourable expectation, for on comparing the clergy alone with the remainder, I find that while at the period, from 30 to 40, the former lose 5 per cent. by death, the latter lose no less than 13 per cent., an excess which must tend greatly to lower the expectation of life for the entire class.

From the foregoing considerations it is rendered in the highest degree probable that, for the greater part of life, the gentry are more healthy than the aristocracy, and professional persons (chiefly clergymen) more healthy than either of the others. It will presently appear how far this conclusion is borne out by the result of the facts gleaned from the *Annual Register*.

Before, however, I proceed to this new order of facts, it may be well to apply the new materials collected from the county histories, to the solution of a question partly discussed in the former essay—Has the duration of life among the higher classes varied at different periods, and if so, has it continued to improve, as we have reason to believe has been the case with the bulk of the community?

The following table will contribute somewhat towards the solution of this question, but the general results to which it leads must be received with all the reserve which should always be exercised when we deal with small numbers of facts. They are *statistical probabilities* of a low order, which may be usefully placed on record, awaiting further confirmation, or the more unwelcome fate of theories based on too slender a foundation.

TABLE VI.

Date of Birth.	English Kings.		Peerage and Baronetage.		Gentry.		Professions.		Females.		Total.	
	No. of Deaths	Age.	No. of Deaths	Age.	No. of Deaths	Age.	No. of Deaths	Age.	No. of Deaths	Age.	No. of Deaths	Age.
1200-1300	2	66:50	7	64:14	7	62:29	..	..	1	56	17	63:18
1300-1400	3	48:33	9	45:44	7	46:57	..	..	2	47:5	21	46:42
1400-1500	3	50:00	23	69:11	21	60:29	1	58	5	47:0	53	58:24
1500-1550	1	59:00	52	71:27	100	68:15	30	66:90	40	65:35	222	68:21
1550-1600			100	68:25	244	64:25	81	69:06	152	57:85	580	63:96
1600-1650	4	66:75	192	63:95	707	59:65	159	64:17	424	60:13	1482	60:83
1650-1700			346	62:40	625	52:75	182	60:57	613	56:29	1766	56:67
1700-1745	3*	74:66	812	64:13	479	58:58	185	62:67	463	68:81	1942	63:75

* 1700 to 1763 inclusive.

This table is extremely curious, and deserving of comment. The last column, which presents the total of the five classes, exhibits an average duration of life, in persons born during the 13th century, of 63 years; this average falls during the 14th century so low as $46\frac{1}{2}$ years, rises during the 15th to $58\frac{1}{4}$, and during the first half of the 16th century to $68\frac{1}{5}$; from this, its highest point, it gradually falls, in successive half centuries, till, in the latter half of the 17th century, it reaches its minimum, 57 years, to recover itself again during the first half of the 18th century, when it rises to $63\frac{3}{4}$ years. With this general result, that of the several classes tallies as closely as could be reasonably anticipated. In the first three columns, and in the general average, there is a minimum in males born during the 14th century, and a decrease as compared with those born in the preceding and succeeding century; in the case of English monarchs there is an unbroken increase through the several successive periods; the peerage and baronetage, and the gentry, present a maximum in those born during the first half of the 16th century, and professional persons in those born during the last half of the same century; in females also the average is high during the first half of the 16th century, and, in common with the other classes, decreases till the end of the 17th century, to increase again in persons born during the first 45 years of the 18th century. In the case of females the maximum age is attained at this period. All the columns agree in presenting a marked increase in the average duration of life of those born during the 18th century, as compared with those born in the last half of the 17th century. In males the maximum occurs in the first or last half of the 16th century, in females in the beginning of the 18th century.

Though it is not contended that the facts at the earlier periods are sufficiently numerous, yet some weight ought to be given to the coincidence of the several data in the same general result. Should the figures in this table receive confirmation from future inquiries, the

result expressed in general terms would be—an extraordinarily low duration of life in persons born during the 14th century, a maximum attained during the 16th century, a progressive decrease in the value of life till the end of the 17th century, and a marked improvement in those born during the 18th century. It will presently appear that this improvement is still in progress.

In pointing out these fluctuations, in the case of the peerage and baronetage, I suggested that the progressive diminution in the value of life might be due to social habits gradually deteriorating from the period of the greatest average, falling to a minimum as intemperance and self-indulgence reached their climax, and then again rising with improved habits of living: and to this view of the case I still incline. Whether the very low duration of life in persons born during the 14th century is to be ascribed to the frightful pestilence which ravaged this country about the middle of that century, and to the long succession of similar visitations which followed close upon it and upon each other, is a question which I am unable to answer. I proceed, therefore, to the second division of my subject, the duration of life among the higher classes, as determined by facts gleaned from the *Annual Register*.

Annual Register.

From the obituaries of the *Annual Register*, from the date of its first publication in the year 1758 to the year 1843 inclusive, I have carefully extracted the ages at death of all persons dying aged 21 years and upwards, and have arranged them according to sex, rank, and profession. The comparison which it is proposed to institute in the present Essay will embrace the members of royal houses, both male and female, the male members of the families of the peerage and baronetage, and of the gentry, and females belonging to the higher classes; and as the period embraced by the obituaries is the same in each case, it is believed that the comparisons will be as accurate as the nature of the case allows. The results obtained in the case of professional men are reserved for a future communication.

It may be well to add, that in the case both of the county histories and of the *Annual Register*, the deaths by violence have been omitted, and that every death from natural causes taking place above 21 years of age has been included in the abstracts. It may be objected to facts derived from this source, that the results may be influenced by selection; and that while the deaths of all members of royal houses and of the aristocracy, at whatever age occurring, would be chronicled, the deaths occurring among the gentry are only recorded in the case of men who have attained to positions of eminence. A reference to the obituaries themselves will show that there is no good ground for this objection. There is such a proportion of young men, and of men without title or distinction, as might be expected in an obituary aiming at being a faithful and impartial chronicle of deaths taking place in the higher ranks of society. Moreover, the large number of deaths of tradesmen and of persons whose decease could have no public interest, shows that such was the object of the compiler of the obituaries. In using the tables as means of comparison with the duration of life in the humbler orders, it should be borne in mind, that if any omissions have been made, they are most likely to have been of the younger members; so that if there is any error or exaggeration, it consists in

presenting the average age at death, and the expectation at different ages, in too favourable a light: so that if, on comparing the higher classes with the rest of the community, or with the lower orders, the result should be to the disadvantage of the former, they must be considered as still shorter-lived than the figures would represent them.

Duration of Life among the Higher Classes, as deduced from the Obituaries of the Annual Register, 1758 to 1843.

TABLE VII.

Age.	Royal Houses.		Aristocracy.	Gentry.	Females, Upper Classes.	Age.	Royal Houses.		Aristocracy.	Gentry.	Females, Upper Classes.
	Males.	Females					Males.	Females			
21	1	0	5	5	24	61	2	0	14	29	19
22	1	0	6	15	16	62	0	1	21	32	23
23	0	0	7	10	14	63	1	3	26	39	25
24	1	1	2	8	17	64	1	0	22	31	13
25	0	0	5	16	16	65	1	0	29	40	38
26	0	0	3	9	11	66	4	1	26	29	28
27	2	0	6	11	16	67	3	0	18	39	23
28	0	1	7	13	18	68	3	4	30	44	27
29	0	1	6	6	12	69	2	4	19	40	28
30	0	0	13	12	6	70	1	1	47	63	66
31	0	0	5	5	13	71	2	1	35	49	41
32	0	0	4	16	19	72	5	1	39	45	46
33	1	0	7	8	15	73	2	3	35	45	44
34	0	2	2	5	10	74	1	1	34	54	36
35	0	2	10	10	13	75	1	2	42	60	63
36	1	1	7	9	15	76	6	4	35	56	47
37	1	0	9	6	22	77	2	0	34	47	51
38	0	0	6	12	18	78	5	0	31	40	45
39	1	1	7	3	11	79	0	1	15	24	37
40	0	1	8	9	10	80	2	2	31	80	64
41	1	1	8	12	13	81	1	1	29	32	54
42	2	0	13	13	12	82	2	1	32	45	55
43	2	0	12	17	8	83	2	1	25	40	50
44	1	0	7	9	15	84	0	0	21	51	48
45	2	2	12	10	17	85	1	0	31	46	48
46	2	0	14	3	16	86	0	0	20	32	39
47	0	1	12	8	17	87	1	1	21	32	36
48	0	0	12	10	12	88	1	0	17	24	36
49	1	1	9	10	9	89	1	0	4	13	18
50	2	0	10	18	14	90	1	0	16	21	38
51	3	0	9	11	14	91	0	0	5	13	20
52	2	0	11	14	13	92	1	0	6	11	25
53	3	3	15	17	13	93	....	1	3	15	16
54	2	2	19	10	19	94	....	....	2	10	12
55	2	0	21	16	15	95	....	....	0	4	9
56	1	0	21	16	16	96	....	....	4	10	10
57	3	1	17	31	11	97	....	....	2	6	9
58	2	1	22	22	12	98	....	....	1	5	9
59	4	2	16	15	11	99	....	....	....	2	3
60	3	2	32	25	20	100	and up wards	....	....	14*	35†

* 6 at 100, 5 at 101, 1 at 102, 1 at 105, and 1 at 109.

† 13 at 100, 4 at 101, 3 at 102, 1 at 103, 3 at 104, 3 at 105, 1 at 106, 1 at 108, 2 at 109, 1 at 110, 1 at 111, 1 at 112, and 1 at 117.

The preceding table gives the numbers dying at each year from 21 inclusive, in the following classes:—the members of royal houses, male and female, the aristocracy, the gentry, and the females belonging to the two last-mentioned classes. The number of deaths recorded in the several classes is as follows:—royal houses, males 102, females 60; aristocracy 1239; gentry 1787; females 1907.

The following tables present the numbers and per centage proportions for periods of 5 and 10 years respectively.

TABLE VIII.

Age.	Number of Deaths.					Per Cent.				
	Royal Houses.		Aristocracy.	Gentry.	Females, Upper Classes.	Royal Houses.		Aristocracy.	Gentry.	Females, Upper Classes.
	Males.	Females				Males.	Females			
21—25	3	1	25	54	87	2.94	1.67	2.02	3.02	4.56
26—30	2	2	35	51	63	1.96	3.33	2.83	2.85	3.30
31—35	1	4	28	44	70	0.96	6.67	2.26	2.46	3.67
36—40	3	3	37	39	76	2.94	5.00	3.00	2.18	3.99
41—45	8	3	52	61	65	7.84	5.00	4.20	3.41	3.41
46—50	5	2	57	49	68	4.90	3.33	4.60	2.74	3.56
51—55	12	5	75	68	74	11.77	8.33	6.05	3.80	3.88
56—60	13	6	108	109	70	12.75	10.00	8.71	6.10	3.67
61—65	5	4	112	171	118	4.90	6.67	9.04	9.57	6.19
66—70	13	10	140	215	172	12.75	16.67	11.30	12.03	9.02
71—75	11	8	185	253	230	10.80	13.33	14.93	14.16	12.06
76—80	15	7	146	247	244	14.71	11.67	11.78	13.82	12.80
81—85	6	3	138	214	255	5.88	5.00	11.13	11.97	13.37
86—90	4	1	78	122	167	3.92	1.67	6.30	6.82	8.76
91—95	1	1	16	53	82	0.96	1.67	1.29	3.00	4.30
96—100	and up wards		7	37	66	....	....	0.56	2.07	3.46

TABLE IX.

Age.	Number of Deaths.					Per Cent.				
	Royal Houses.		Aristocracy.	Gentry.	Females, Upper Classes.	Royal Houses.		Aristocracy.	Gentry.	Females, Upper Classes.
	Males.	Females				Males.	Females			
21—30	5	3	60	105	150	4.90	5.00	4.85	5.87	7.86
31—40	4	7	65	83	146	3.90	11.67	5.26	4.64	7.66
41—50	13	5	109	110	133	12.74	8.33	8.80	6.15	6.97
51—60	25	11	183	177	144	24.52	18.33	14.76	9.90	7.55
61—70	18	14	252	386	290	17.65	23.34	20.34	21.60	15.21
71—80	26	15	331	500	474	25.51	25.00	26.71	27.98	24.86
81—90	10	4	216	336	422	9.80	6.67	17.43	18.79	22.13
91—100 and upwards	1	1	23	90	148	0.96	1.67	1.85	5.07	7.76

A very superficial examination of these tables will serve to show that the members of royal houses have a shorter duration of life than the aristocracy, the aristocracy than the gentry, and these latter a

shorter duration still than the females of the upper classes. It must also be evident by the higher per centage proportions of deaths occurring at early and late periods of life among females, that that class is characterized by the high mortality of its young adults on the one hand, and by the attainment, by a large proportion of the survivors, of a good old age, on the other. These conclusions are confirmed by the following table, which presents the average age attained by such of the several classes as reached the undermentioned ages. A column has also been added, shewing the average age attained by such of the Kings of England, (21 in number) since the Conquest, as died natural deaths.

TABLE X.

Age at Death.	Kings of England.	Royal Houses.		Aristocracy.	Gentry.	Females of the Upper Classes.	England, (Mr. Farr.)	
		Males.	Females				Males.	Females.
21 and upwards	....	62.11	61.18	65.31	67.59	67.18	68.60	69.80
26 "	....	63.31	61.81	66.19	68.97	69.31	69.68	70.88
31 "	59.19	64.06	63.00	67.31	70.22	70.79	70.80	71.98
41 "	60.45	65.25	66.74	69.13	72.03	74.00	73.12	74.20
51 "	64.12	68.54	69.11	71.69	74.00	76.56	75.64	76.58

This table strongly confirms the results drawn from the facts gleaned from the county histories. If the comparison be limited to males, it will be observed that, for all ages, the average duration of life increases from the highest class to the lowest; and the two columns of females present the same result. It will also appear that, though the duration of life among the females of the higher class is considerably longer than among males of the same class, the former are exposed in early adult life to dangers which may reduce the averages for the early periods even below the standard of the other sex.

The column for all England shows that the duration of life of the higher classes, both males and females, falls short of the average of the whole community: a result in accordance with the facts recently presented to the Society, by Mr. Neison.

Having thus given separately, the results deduced from the *County Histories* and the *Annual Register*, I proceed to compare them. This is done in the following table.

TABLE XI.

Age.	Aristocracy.		Gentry.		Females.	
	Peerage and Baronetage.	Annual Register.	County Histories.	Annual Register.	County Histories.	Annual Register.
21 and upwards	60.23	65.31	57.31	67.59	57.09	67.18
26 "	61.35	66.19	59.33	68.97	59.86	69.31
31 "	61.66	67.31	61.10	70.22	62.07	70.79
41 "	65.54	69.13	64.83	72.03	67.24	74.00
45 "	69.70	71.69	68.14	74.00	70.85	76.56

This table shows the great improvement which has taken place in the duration of life in recent times as compared with the average of the last six centuries. When, however, the average of the deaths recorded in the last century, in the pages of the *Annual Register*, is compared with the average of a period immediately preceding it, the increase in the value of life will appear to be much less considerable. Thus the average age at death of 812 members of the families of the peerage and baronetage, born during the first 45 years of the 18th century, and of whom a considerable proportion must have died before the end of that century, is 64·13, but the average age at death of 1239 males of the same class, dying from the year 1758 to the year 1843 inclusive, and of whom a large number must have been born during the latter end of the 18th century, is 65·31, being an increase of 1·18 years. This difference of little more than one year may be fairly presumed to be the advantage enjoyed by members of the aristocracy, born during the last half of the 18th century, over those born during the first half of the same century.

The results established in this paper differ from many averages recently obtained, inasmuch as they are not likely to be influenced by any material difference in the ages of the living members of the several classes which have been made the subjects of comparison. By limiting the record of deaths to adults, and comparing classes which may be presumed to be similarly circumstanced in regard to the ages of the living, it is believed that the results obtained are free from one of the most embarrassing fallacies belonging to vital statistics.

It may be useful to conclude these remarks by a brief summary of the chief propositions and probabilities established in this and the previous essay.

1. The duration of life among the higher classes has varied greatly at different periods. It was a minimum in persons born during the 14th century, and a maximum in those born during the 16th century; and it was nearly equal in those born during the 13th and first half of the 18th centuries. From the 16th century (the period of the maximum) it gradually fell till the latter half of the 17th century, since which period it has again increased, and is still probably improving. These propositions are based rather upon the coincidence of the several series of facts than on the number of the facts themselves, which during the early periods are not sufficiently numerous. (See Table VI.)

2. The duration of life among the upper classes varies with their rank, being lowest in the highest, and highest in the lowest rank. Beginning with the class which has the shortest average duration of life, the several classes will be found to stand in the following order.

1. Kings.

2. Members of Royal Houses, (males)*.

* This relative position of the members of Royal Families is confirmed by the approximate average age at death of the members of Ducal and Princely families, extracted by Dr. Casper, of Berlin, from the Almanack of Gotha. The following, in round numbers, are the average ages: 20 and upwards, 56; 25 and upwards, 57; 30 and upwards, 59; 40 and upwards, 63; 50 and upwards, 67. These numbers are higher than those obtained for English Kings, and lower than those obtained for

3. Members of Royal Houses, (females).
4. Peers, (successors to Title).
5. Male members of the families of the Peerage and Baronetage.
6. Do. Gentry.
7. Professional men, (chiefly Clergymen)*.
8. Females of the Upper Classes.

3. The expectation of life among females of the upper classes is lower than that of males, when young adults are included, but higher when the comparison is restricted to more advanced ages.

4. The duration of life among the higher classes of both sexes falls short of that for the whole of England and Wales.

Though it has been the chief object of this paper to present the results of new inquiries, it must be interesting, and may be useful to compare the expectation of life among the higher orders with that which obtains in the other classes of society. The materials for such a comparison in regard to the lower orders were furnished in an extremely interesting and highly important essay recently presented to the Statistical Society by Mr. Neison, and subsequently published by him in a separate form.

The following table contrasts the expectation of life among the aristocracy and gentry respectively, with that of professional persons (chiefly clergymen), of agricultural labourers of England and Wales, and of the working classes in Liverpool. It is derived from the "Contributions to Vital Statistics," by F. G. P. NEISON, Esq.

TABLE XII.

Age.	Peerage and Baronetage.	Gentry.	Professions.	Agricultural Labourers' Friendly Societies. Mr. Neison.	England. (Males.) Mr. Neison.	Liverpool Friendly Societies (Mr. Neison).
20	38·5	37·3	....	47·9	40·7	37·9
30	30·9	31·2	33·9	40·6	34·1	30·1
40	24·4	24·9	26·0	32·8	27·5	23·1
50	17·9	18·4	18·9	25·1	20·8	17·1
60	12·6	12·8	12·8	17·8	14·6	12·0

If we compare the expectation of life for the aristocracy and gentry with that enjoyed by the other classes, we can scarcely fail to arrive at the conclusion that the possession of ample means of self-indulgence is unfavourable to longevity. Luxurious habits, an absence

the members of Royal Houses from the *Annual Register*. It is much lower than the average for the aristocracy. The approximate average, in order to admit of exact comparison, would require to be increased by a small fraction of a year. (See Table X.)

* I may so far anticipate the promised inquiry into the duration of life among the members of the several professions, as to state that the facts gleaned from the *Annual Register* fully confirm those drawn from the county histories in regard to the relative position of the clergy. 1239 deaths among the aristocracy yield an average of 65·31 years, 1787 deaths of gentry an average of 67·59 years, while 950 clergy yield a mean of 68·75 years; a duration of life exceeding that of females, when young adults are included.

of the chief motives which stir other men to exertion, and the inevitable effect of idleness—dissipation—combine to impair the health and shorten the lives of these favoured children of fortune. When compared with professional persons, and especially with the clergy, of whom a large proportion belongs to the same class of society, but with habits of life naturally more strict, and means of self-indulgence more limited, the aristocracy and gentry will be found to have a shorter expectation of life. Even when compared with the labouring class of the most unhealthy city of England, they enjoy a very trifling advantage. But when we make the agricultural labourer our standard of comparison we are still more struck with the physical inferiority of the higher classes, and still more convinced of the advantages of that temperance and moderation which their lowly circumstances impose upon them, and of that daily toil which we are sometimes disposed to regard in the light of a hardship. Again, contrast the expectation of life among the higher classes with the expectation for England and Wales, and we must be still more strongly impressed with the same conviction. The favourable expectation of the entire male population, with a large number at the top of the social scale exposed to the evils of wealth, and a still larger class at the bottom of the scale immersed in poverty and surrounded with all its unhealthy accompaniments, leads inevitably to the conclusion that, in addition to the agricultural labourers, there must be a large class who enjoy a better expectation of life than either extreme, and whose longevity is such as not only to compensate the low duration of life of the two extreme classes, but to create, so to speak, a fund out of which that higher average duration may be supplied. It is but natural to look for the class in question among that part of the population residing either in the country, or in the smaller towns of England, which approaches nearest to the condition of the agricultural labourer, and which combines, in varying proportions, daily exercise in a pure atmosphere with prudent and temperate habits.

From what has now been stated, it is impossible to escape the conviction that temperance, mental occupation, and bodily exercise, are the three principal elements of health. When these are combined, whether from necessity or by choice, we have the condition most favourable to longevity, and, by inference, to health and enjoyment. Temperance, with constant bodily exercise, is the necessary condition of the ill-paid agricultural labourer; temperance, with constant mental occupation—a combination which may be presumed to exist in its highest perfection in the clergy—is the lot of the mass of professional persons. Both these classes are long-lived, but the agricultural labourer stands at the top of the sanitary scale, separated by a wide interval from every other class of the community.

Contributions to Vital Statistics, especially designed to elucidate the Rate of Mortality, the Laws of Sickness, and the Influences of Trade and Locality on Health, derived from an extensive Collection of Original Data, supplied by Friendly Societies, and proving their too frequent Instability. By F. G. P. NEISON, Esq., F.S.S., F.L.S., Actuary to the Medical, Invalid, and General Life Office.

[Continued from page 343, Vol. VIII.]

Rates and Contributions of Friendly Societies.

THE influence of the results established in the former part of this communication on the rates and contributions of Friendly Societies, is that which most nearly concerns the members of those institutions. It is, therefore, proposed to add a few remarks bearing on this subject.

The first point to which attention will be directed is the Values of Annuities, according to the Rates of Mortality developed in this inquiry, for Friendly Societies in the Rural, Town, and City Districts of England and Wales—for the three districts combined—and also for Friendly Societies in Scotland. These Values will be found in Table XXX.

The rate of interest assumed in the following calculations is 3 per cent. per annum. In almost every other calculation extant for the purposes of Friendly Societies, a higher rate of interest has been adopted; but a careful investigation of the returns on this point, as given in the

TABLE XXX*.

Value of Annuities.—Three per Cent.—Friendly Societies.—Males.

Ages.	ENGLAND AND WALES.				SCOTLAND.
	Rural Districts.	Town Districts.	City Districts.	Rural, Town, and City Districts.	Rural, Town, and City Districts.
10	24·61632	24·27400	23·43143	24·35763	24·10883
15	23·58105	23·21610	22·37367	23·30430	23·00442
20	22·78605	22·18086	21·29054	22·39981	22·04167
25	22·01579	21·05800	20·15300	21·48840	21·11751
30	21·06763	19·84248	19·02036	20·48675	20·05456
35	19·92773	18·53330	17·76316	19·24911	18·83406
40	18·60452	17·01150	16·45861	17·90117	17·56000
45	17·08533	15·40168	15·11524	16·40208	16·09068
50	15·41074	13·65935	13·63015	14·77241	14·54962
55	13·66985	11·85678	12·01300	13·06832	12·86124
60	11·85797	10·12786	10·18722	11·27757	11·18877
65	9·97031	8·38614	8·45537	9·48291	9·62477
70	8·26474	6·72612	6·84949	7·80205	8·01955
75	6·88702	5·73900	5·30768	6·45931	6·44582
80	5·62034	4·64316	3·82960	5·15847	4·60254
85	4·65920	3·21398	2·61777	3·99517	3·44665
90	3·02089	1·93288	1·73900	2·46913	2·34280
95	1·36282	1·24523	1·23064	1·29460	1·29804
100	....	....	....	....	....

* This, and the eleven following Tables, will be found complete for every age, in "Contributions to Vital Statistics," published by Simpkins, Marshall and Co.

Schedules referred to at page 297, vol. viii., has shown that in practice a higher rate of interest is not realised by Societies.

The Commissioners for the Reduction of the National Debt have hitherto allowed Friendly Societies 3*l.* 16*s.* 0½*d.* per cent.; but even in the cases where this mode of investment has been taken advantage of, the difficulty of collecting all the funds at the moment they fall due, and of immediately employing them in the Government Stock, together with the comparatively large balance to the whole amount of the Societies' funds usually kept in hand to meet approaching liabilities, render it difficult to make such beyond 3 per cent. It is intended on

TABLE XXXI.

Value of Deferred Annuities to commence at Age 70.—Three per Cent.—Friendly Societies.—Males.

Ages.	ENGLAND AND WALES.				SCOTLAND.
	Rural Districts.	Town Districts.	City Districts.	Rural, Town, and City Districts.	Rural, Town, and City Districts.
10	·65112	·42290	·38922	·56105	·5388
15	·76513	·49756	·46062	·65971	·6335
20	·91400	·59034	·54896	·78632	·7551
25	1·09932	·70339	·65852	·94337	·9081
30	1·32102	·84266	·79819	1·13398	1·0936
35	1·58746	1·01625	·97311	1·36739	1·3232
40	1·91180	1·23160	1·20038	1·65581	1·6149
45	2·31101	1·50478	1·50262	2·01895	1·9792
50	2·81868	1·86923	1·90308	2·48959	2·4632
55	3·50134	2·37996	2·45326	3·12949	3·1099
60	4·45356	3·16628	3·22609	4·04001	4·0594
65	5·85372	4·42512	4·50804	5·41330	5·5670

TABLE XXXII.

Value of Temporary Annuities to continue till Age 70.—Three per Cent.—Friendly Societies.—Males.

Ages.	ENGLAND AND WALES.				SCOTLAND.
	Rural Districts.	Town Districts.	City Districts.	Rural, Town, and City Districts.	Rural, Town, and City Districts.
10	23·96250	23·85110	23·04221	23·79658	23·5700
15	22·81592	22·71854	21·91305	22·64459	22·3709
20	21·87205	21·59052	20·74158	21·61349	21·2866
25	20·91647	20·35461	19·49448	20·54503	20·2094
30	19·74661	18·99982	18·23217	19·35277	18·9610
35	18·34027	17·51705	16·79005	17·88172	17·5109
40	16·69272	15·77990	15·25823	16·24536	15·9451
45	14·77431	13·89690	13·61262	14·38313	14·1115
50	12·59206	11·79012	11·72707	12·28282	12·0864
55	10·16851	9·47682	9·55974	9·93883	9·7513
60	7·40441	6·96158	6·96113	7·23756	7·1294
65	4·01659	3·96102	3·94733	4·06961	4·0578

TABLE XXXIII.

Single Premium for Sum at Death.—Three per Cent.—Friendly Societies.—Males.

Ages.	ENGLAND AND WALES.				SCOTLAND.
	Rural Districts.	Town Districts.	City Districts.	Rural, Town, and City Districts.	Rural, Town, and City Districts.
10	•25397	•26387	•28840	•26143	•26868
15	•28404	•29468	•31921	•29211	•30084
20	•30720	•32483	•35076	•31845	•32888
25	•32964	•35753	•38389	•34500	•35580
30	•35725	•39294	•41688	•37417	•38676
35	•39046	•43107	•45350	•41022	•42231
40	•42900	•47539	•49150	•44948	•45942
45	•47324	•52228	•53064	•49314	•50221
50	•52202	•57303	•57388	•54061	•54710
55	•57272	•62553	•62098	•59024	•59628
60	•62550	•67589	•67416	•64240	•64499
65	•68048	•72662	•72460	•69467	•69054
70	•73015	•77497	•77137	•74363	•73729
75	•77028	•80372	•81628	•78274	•78313
80	•80718	•83564	•85933	•82063	•83682
85	•83517	•87726	•89463	•85451	•87048
90	•88289	•91457	•92022	•89896	•90264
95	•93118	•93461	•93503	•93317	•93307
100	....	....	....	....	....

TABLE XXXIV.

Annual Premium for Sum at Death.—Three per Cent.—Friendly Societies.—Males.

Ages.	ENGLAND AND WALES.				SCOTLAND.
	Rural Districts.	Town Districts.	City Districts.	Rural, Town, and City Districts.	Rural, Town, and City Districts.
10	•00992	•01044	•01181	•01031	•01070
15	•01156	•01217	•01366	•01202	•01253
20	•01292	•01401	•01574	•01361	•01427
25	•01432	•01621	•01815	•01534	•01609
30	•01619	•01885	•02082	•01741	•01837
35	•01866	•02207	•02417	•02026	•02129
40	•02188	•02639	•02815	•02378	•02475
45	•02617	•03184	•03293	•02834	•02939
50	•03181	•03909	•03923	•03428	•03518
55	•03904	•04865	•04772	•04196	•04302
60	•04865	•06074	•06026	•05232	•05292
65	•06203	•07742	•07663	•06627	•06499
70	•07881	•10031	•09827	•08448	•08174
75	•09767	•11926	•12941	•10493	•10518
80	•12193	•14808	•17793	•13325	•14937
85	•14758	•20818	•24729	•17107	•19576
90	•21958	•31183	•33597	•25913	•27003
95	•39410	•41627	•41918	•40668	•40604
100	....	....	....	....	....

another occasion to publish an account of the Money Transactions of those Societies; this and some other points of interest will then be more fully entered on.

The distinguishing features of the Rates of Mortality in the respective Districts will of course develop themselves also in the same order or relation in the value of Annuities, although not in so marked a

TABLE XXXV.

*Temporary Annual Premium to continue till Age 70 for Sum at Death.—
Three per Cent.—Friendly Societies.—Males.*

Ages.	ENGLAND AND WALES.				SCOTLAND.
	Rural Districts.	Town Districts.	City Districts.	Rural, Town, and City Districts.	Rural, Town, and City Districts.
10	·01017	·01062	·01200	·01054	·01094
15	·01193	·01242	·01393	·01236	·01287
20	·01343	·01438	·01613	·01408	·01476
25	·01504	·01674	·01873	·01601	·01678
30	·01722	·01965	·02168	·01838	·01938
35	·02019	·02328	·02549	·02173	·02281
40	·02425	·02833	·03023	·02606	·02711
45	·03000	·03514	·03631	·03206	·03323
50	·03841	·04480	·04509	·04070	·04181
55	·05128	·05971	·05881	·05396	·05546
60	·07443	·08489	·08468	·07798	·07934
65	·13565	·14647	·14646	·13703	·13653

TABLE XXXVI.

Probability of Living One Year.—Friendly Societies.—Males.

Ages.	ENGLAND AND WALES.				SCOTLAND.
	Rural Districts.	Town Districts.	City Districts.	Rural, Town, and City Districts.	Rural, Town, and City Districts.
10	·997700	·997250	·996040	·997500	·99750
15	·995652	·996214	·995263	·995821	·99586
20	·992605	·994651	·993556	·993243	·99298
25	·992772	·994054	·990194	·992985	·99246
30	·992890	·992597	·990723	·992435	·99208
35	·992641	·991530	·988585	·991700	·99044
40	·992028	·990401	·985986	·990613	·98923
45	·990855	·987873	·983303	·988797	·98751
50	·988003	·983727	·980604	·985730	·98416
55	·983605	·976814	·977049	·981017	·98005
60	·978407	·967278	·969541	·974951	·97091
65	·968353	·955815	·954033	·964479	·96156
70	·949565	·927706	·936080	·944698	·94905
75	·929889	·900362	·910395	·923389	·93550
80	·903566	·890423	·864990	·898349	·89612
85	·886486	·842001	·789248	·870008	·83359
90	·851890	·725800	·686766	·800000	·77510
95	·671780	·608280	·598592	·636453	·63830
100	....	....	....	....	....

degree, nor to the same extent as in the simple Mortality Tables. If money made no interest, it is plain that the value of Annuities, and the numerical expression in the Expectation Tables or Mortality Tables of Collective Intensity, would be identical, and under that aspect Annuities would have a maximum value. Again, if money could realize an infinite amount of interest, Annuities would then be

TABLE XXXVII.

Probability of Dying in one Year.—Friendly Societies.—Males.

Ages.	ENGLAND AND WALES.				SCOTLAND.
	Rural Districts.	Town Districts.	City Districts.	Rural, Town, and City Districts.	Rural, Town, and City Districts.
10	·002300	·002750	·003960	·002500	·00250
15	·004348	·003786	·004737	·004179	·00414
20	·007395	·005349	·006444	·006757	·00702
25	·007228	·005946	·009806	·007615	·00754
30	·007110	·007403	·009277	·007565	·00792
35	·007359	·008470	·011415	·008300	·00956
40	·007972	·009599	·014014	·009387	·01077
45	·009145	·012127	·016697	·011203	·01249
50	·011997	·016273	·019396	·014270	·01584
55	·016395	·023186	·022951	·018983	·01995
60	·021593	·032722	·030459	·025049	·02909
65	·031647	·044185	·045967	·035521	·03844
70	·050435	·072294	·063920	·055302	·05095
75	·070111	·099638	·089605	·076611	·06450
80	·096434	·109577	·135010	·101651	·10388
85	·113514	·157999	·210752	·129992	·16641
90	·148110	·274200	·313234	·200600	·22490
95	·328220	·391720	·401408	·363547	·36170
100	....	....	....	....	....

TABLE XXXVIII.

Single Premium for Sickness.—Three per Cent.—Friendly Societies.—Males.

Ages.	ENGLAND AND WALES.				SCOTLAND.
	Rural Districts.	Town Districts.	City Districts.	Rural, Town, and City Districts.	Rural, Town, and City Districts.
10	30·51966	36·22972	28·20766	31·86825	27·2409
15	32·90212	37·24804	31·49726	34·09838	30·5778
20	34·68519	39·80233	35·41518	36·20420	32·7979
25	37·06553	42·65912	38·35728	38·74841	34·6727
30	39·71760	46·39042	40·81807	41·67304	37·0322
35	43·04039	50·82250	43·37036	45·12188	40·2840
40	46·56296	55·56052	46·00568	48·83092	44·1712
45	49·99718	59·78395	48·60345	52·34908	48·2316
50	53·45831	62·31153	50·16440	55·28222	51·8728
55	55·95894	63·22429	49·06310	56·91284	53·1216
60	55·15634	61·85428	42·69764	55·23260	51·5541
65	43·27124	48·88897	29·18848	42·94219	40·9909

at a minimum value, and have the same expression for every Table of Mortality and every age in those tables. To illustrate this, suppose money could realize 100 per cent., or always double or replace itself in the course of a year; and starting with unity, before the expiration of the first term of the annuity a new fund would have formed itself capable of meeting the annuity, and leaving exactly the original unit with which the start was made, ready to enter on a second term of the annuity in the same manner, and so on *ad infinitum*. Under such an aspect, no matter what Table of Mortality was employed, the values of annuities would differ but little, as unity would invariably be ca-

TABLE XXXIX.

Temporary Annual Premium for Sickness, to continue till Age 70.—Three per Cent.—Friendly Societies.—Males.

Ages.	ENGLAND AND WALES.				SCOTLAND.
	Rural Districts.	Town Districts.	City Districts.	Rural, Town, and City Districts.	Rural, Town, and City Districts.
10	1·22262	1·45787	1·17326	1·28519	1·1087
15	1·38152	1·57042	1·37464	1·44215	1·3084
20	1·51649	1·76190	1·62891	1·60100	1·4716
25	1·69122	1·99765	1·87159	1·79849	1·6348
30	1·91441	2·31954	2·12238	2·04753	1·8552
35	2·22543	2·74463	2·43790	2·38971	2·1762
40	2·63176	3·31129	2·82968	2·83154	2·6067
45	3·16953	4·02243	3·32613	3·40302	3·1917
50	3·93305	4·87185	1·94155	4·16193	3·9639
55	5·01042	6·03468	4·64624	5·20282	4·9409
60	6·56278	7·76910	5·36326	6·70497	6·3417
65	8·62563	9·85462	5·89985	8·47051	8·1045

TABLE XL.

Annual Premium.—Sickness.

Ages.	Highland Society*.	Ansell's Results.	England & Wales.	Scotland.
			Rural, Town, and City Districts.	Rural, Town, and City Districts.
21	·9666	1·3479	1·6368	1·5011
25	1·0708	1·4731	1·7985	1·6348
30	1·2417	1·6718	2·0475	1·8552
35	1·4583	1·9320	2·3897	2·1762
40	1·7667	2·2731	2·8315	2·6067
45	2·1917	2·7232	3·4030	3·1917
50	....	3·3318	4·1619	3·9639
55	....	4·1963	5·2028	4·9409
60	....	5·4990	6·7050	6·3417

* This column presumes on money bearing interest at 4 per cent. per annum, and consists of the reciprocals to the quantities given at page 236 of the Highland Society's Report. The other columns are calculated at 3 per cent., as explained in the body of the text.

pable, from the interest realized only, of meeting every payment for an absolute term of years. It is therefore evident that the values of annuities involving the discount of money will always shew less distinction between different Tables of Mortality than the Tables themselves will shew; and that the higher the rate of interest, the less distinction is observable between the annuities of different Tables, as well as less difference between the values of annuities at various ages for the same Mortality Table.

TABLE XLI.

England and Wales.—Whole Population.—Three per Cent.—Males.—Females.

Ages.	Value of Annuities.		Single Premium for Sum at Death.		Annual Premium for Sum at Death.	
	Males.	Females.	Males.	Females.	Males.	Females.
10	23·11227	23·14338	·29770	·29679	·01235	·01229
15	22·31543	22·38900	·32091	·31877	·01376	·01363
20	21·36038	21·54070	·34873	·34347	·01560	·01524
25	20·42957	20·69063	·37584	·36824	·01754	·01698
30	19·45529	19·77275	·40421	·39497	·01976	·01901
35	18·34839	18·76000	·43645	·42446	·02256	·02148
40	17·08318	17·60569	·47331	·45809	·02617	·02462
45	15·66814	16·26662	·51452	·49709	·03087	·02879
50	14·11352	14·74322	·55980	·54148	·03704	·03439
55	12·43500	13·05178	·60869	·59072	·04531	·04204
60	10·67861	11·26347	·65985	·64281	·05650	·05242
65	8·89699	9·41209	·71174	·69673	·07192	·06692
70	7·16642	7·60903	·76214	·74925	·09333	·08703
75	5·54513	5·93475	·80937	·79802	·12366	·11507
80	4·13709	4·47790	·85037	·84045	·16554	·15343
85	3·02174	3·28766	·88286	·87512	·21953	·20410
90	2·18378	2·37019	·90727	·90184	·28497	·26759
95	1·64619	1·73887	·92293	·92023	·34878	·33599
100	1·36660	1·29352	·93107	·93320	·39342	·40689
105	·32363	·48544	·96145	·95674	·72639	·64410

On referring to Table VII., p. 302, vol. viii., it will be seen that the difference of Expectation between the Rural and City Districts at age 30 is 14·442 per cent.; but a comparison of the values of Annuities at that age for the same Districts, as given in Table XXX., shows a difference of only 9·729 per cent. The following Abstract will give a concise view of the relative values of the two expressions:—

TABLE XLII.

Age.	Expectation of Life in		Excess per Cent. in favour of Rural Districts.	Value of Annuities, Three per Cent.		Excess per Cent. in favour of Rural Districts.
	Rural Districts.	City Districts.		Rural Districts.	City Districts.	
20	45·3550	40·0148	11·774	22·78605	21·29054	6·563
40	30·9724	26·0873	15·772	18·60452	16·45861	11·534
60	16·6524	13·7685	17·318	11·85797	10·18722	14·090

Again, for reasons precisely similar, less distinction will be found to exist between the value of annuities for various ages in the same table, than between the expectations of life for those ages; for example, the difference of expectation between ages 30 and 60 in the Rural Districts is 21.7549 years, or nearly 57 per cent.; but the difference between the values of annuities for those ages in the Rural Districts is 9.2097, or about 44 per cent. Like results will also be found for other ages, no matter what table of mortality be employed: taking the general results for the three districts for ages 50 and 70, the difference of expectation will be found to be 11.9863 years, or about 54 per cent.; but the difference in the values of the annuities for those ages is 7.1460, or 46 per cent. The difference in this instance is however less than in the former, on account of more proximate and more advanced ages being taken; but with ages less proximate and less advanced, the difference will exceed that in either of the preceding cases. Let ages 10 and 50 in the Rural Districts be compared, and the difference of expectation will be found to be 56 per cent., but the difference in the value of annuities is only 37 per cent.

From these remarks respecting the relative values of annuities, and the expectation of life in various mortality tables, it is not to be considered that practically it is a matter of indifference which table may be used as a basis for calculations for the guidance of a Society. The object of these remarks is intended to lead to quite the opposite conclusion, and to prevent those who are not thoroughly conversant with such subjects from hastily adopting any given table, simply because the money test, by which it is generally brought into comparison with other tables, shows but little difference. The success of every Friendly Society, and other Institution dealing in life contingencies, depends in a great measure on the proper investment of its funds; and although annuities by two different mortality tables may apparently approximate to nearly equivalent values, still, before all the conditions of each table are practically determined, the accumulation of interest as presumed on in the construction of the tables, will ultimately realize the maximum difference which is found to prevail between the expectation of life for the respective tables.

The following are the values of annuities at 3 per cent. as given in Table XXX., and also according to the Carlisle Table, Mr. Ansell's Table, and the Northampton Table.

TABLE XLIII.

Age.	ENGLAND AND WALES.				SCOTLAND.	Carlisle.	Ansell.	Northampton.
	Rural Districts.	Town Districts.	City Districts.	Rural, Town, and City Districts.	Rural, Town, and City Districts.			
20	22.78605	22.18086	21.29054	22.39981	22.01167	21.694	20.1602	18.6385
40	18.60152	17.01150	16.15861	17.90117	17.56000	17.143	15.6673	14.8476
60	11.85797	10.12786	10.18722	11.27757	11.18877	10.191	9.8583	9.7774

To those desirous of inquiring minutely into the relative values of annuities for the different tables given in this paper, and the tables of mortality hitherto in use, a careful consideration of their respective bearings will be important; for as annuity tables are the foundation on which all the subsequent Monetary Tables are built, their peculiarities must affect the whole structure. This will be clearly seen on inspection of the Table for Deferred Annuities, Table XXXI. According to that table, at age 30 the value of a Deferred Annuity of 1*l*. per annum, to commence forty years hence or on attaining age 70, is, for the Rural, Town, and City Districts, 1*l*.13398, and the value of the same sum according to Mr. Ansell's Table is only .6764. This is a most remarkable distinction, and of vital importance to Friendly Societies; for although the present results for age 30 show only an excess of value in simple or immediate annuities of less than 13 per cent. above those given by Mr. Ansell, yet in the Deferred Annuity at the same age there is an excess of 69 per cent. It is under such circumstances as these, when the improvement of money at interest magnifies results, that serious blunders in the adoption of an erroneous mortality table will be apt to prove hurtful to the interests of a Society.

Few Friendly Societies granting Deferred Annuities have yet survived long enough to suffer from the effects of so serious an error; but the above illustration points out the inevitable ruin which must overtake those Societies at present granting Deferred Annuities, as very few of them exact even so favourable terms as are required by Mr. Ansell's Tables. A further illustration of the manner in which this peculiar result is produced, may be obtained by referring to Table F, page 28, of the "Contributions". It will be seen, that of 89360 persons living aged 30, 42367 attained their 70th year of age; that is to say, out of 100 entering a Friendly Society at 30 years of age, and purchasing Deferred Annuities, 47 would be alive at 70 years of age, to be placed on the annuity list; but Mr. Ansell's Table would provide for 33 only of such persons becoming annuitants. Or more correctly, out of every 1000 members entering those Societies at age 30, there would be 147 annuitants unprovided for; that is to say, 45 per cent. more annuitants would have to make claims, than would be calculated on by Mr. Ansell's data, and who would therefore be left destitute of any provision for old age.

The melancholy spectacle which such a state of things would produce can be readily imagined. Supposing that at the present time there are only one million members of Friendly Societies, (which is much under the correct estimate,) whose average age is about 30, and presuming that the terms for Deferred Annuities are graduated according to the preceding hypothesis, 470,000 of those persons would attain the age of 70, and nearly one-third would be without any provision for old age. This is only one of the many evils connected with the present condition of Friendly Societies; and although its visitation be more remote, the awful consequences of such a calamity, like every other evil of procrastination, will be irreparable.

Table XXII. presents the value of Temporary Annuities to continue till age 70; and from what has been said respecting Immediate Annuities absolute for life, and Deferred Annuities, it must be evident

that Temporary Annuities will also partake of the same character in relation to the other Annuity Tables just referred to.

Since it has been shown that, according to the results of this inquiry, annuities are of greater value than those given in many other tables, it must follow that the value of assurances, or sums payable at death, is less. An inspection of Table XXXIII. will show that at age 30 the value of 100*l.* payable at death is 35*l.* 14*s.* 6*d.* in the Rural Districts; 39*l.* 5*s.* 11*d.* in the Town Districts; 41*l.* 13*s.* 9*d.* in the City Districts; 37*l.* 8*s.* 4*d.* in the Three Districts combined; and 38*l.* 13*s.* 6*d.* according to the value of life in Scotland: while, according to the Carlisle Table of Mortality, the value of the same sum would be 40*l.* 2*s.* 7*d.*; by Mr. Ansell's Table 44*l.* 2*s.* 7*d.*; and by the old Northampton Table as much as 47*l.* 16*s.*

Again: the annual premium at age 30 for an assurance of 100*l.* at death will, according to Table XXXIV., be 1*l.* 12*s.* 5*d.* for the Rural Districts; 1*l.* 17*s.* 9*d.* for the Town Districts; 2*l.* 1*s.* 8*d.* for the City Districts; 1*l.* 14*s.* 1*d.* for the Three Districts combined; and 1*l.* 16*s.* 9*d.* for Scotland: but the annual premium according to the Carlisle Table is 1*l.* 19*s.*; by Mr. Ansell's Table 2*l.* 7*s.* 1*d.*; and by the Northampton Table 2*l.* 13*s.* 4*d.* Nothing beyond the most general view of the various Tables is proposed to be here taken, as the remarks formerly made respecting the Tables of Mortality themselves will point out the various modifications which the results must undergo in their application to monetary purposes.

In Table XXXV. will be found the Temporary Annual Premiums payable until age 70, to assure a sum payable at death, whenever that may happen, for each of the districts. And in Tables XXVI. and XXXVII. will be found the probabilities of living for one year and of dying in one year for each district. As these form elements in the determination of the rates or premiums for allowances during sickness, they are simply inserted as a check upon the calculations.

The next table to be brought under notice is Table XXXVIII., which represents the single premium necessary to provide an allowance of 1*l.* per week during sickness or incapacity for labour up till the age of 70. All the tables here given are meant to be illustrative of the true bearings and risks of Friendly Societies; and the age of 70 has been fixed on in the present instance, and in the other tables of Temporary Premiums, because it is an age usually adopted in calculations for Friendly Societies, and will therefore admit of easy comparison with other results on the same subject.

As no attempt has been made in this paper to enter into the general principles of Vital Statistics, or to discuss the methods and formulæ most applicable to questions of life contingency, those desiring information on such points had better consult the standard works on the subject; but the calculations in reference to the benefits offered by Friendly Societies being limited to the term of 70 years of age, and as it will be necessary in practice to have tables for other terms of life, it may be convenient for reference to give the formulæ by which the results in Table XXXVIII. were obtained.

Let a = the average amount of sickness to each individual for the year immediately following any given age, as given in Table XXII.

Let b = the present value of £1. due six months hence; and

Let $a \times b = x$; also let

p = the probability of a life of the given age living one year; and

c = the present value of £1. due one year hence; and

Let $p \times c = y$; then if

z is made to represent the present value of £1. per week during sickness, from any given age up to an older age—say 70, the successive values for the z representing each age are found under the following expression:

$$z_n = (\lambda z_{n+1} + \lambda y_n) + x_n$$

And if θ is made to represent the terms at the respective ages in Table XXXII.,

$\lambda z_n - \lambda (1 + \theta)$ will give the annual premium for an allowance of £1. per week during sickness or incapacity for labour, as set forth in the table at page 121. In that table both the annual premium and the benefit are understood to cease on attaining 70 years of age, or sooner in the event of death.

The tables referred to are calculated on the supposition that the various payments are to be made annually; but it is well known that Friendly Societies rarely make any payments at so remote periods. For strict practical purposes, tables involving the consideration of annuities payable in monthly or weekly instalments would be better fitted; but as the object of this paper is to furnish data illustrative of the condition of those Societies and of the nature and extent of the risks undertaken by them, rather than to give practical details for their guidance, further tables have not been inserted.

It is obvious from the remarks already made in regard to Table XXII., that the premium for an allowance in sickness, according to the results of this inquiry, must be higher than those of former tables. As Mr. Ansell's information on this subject is the most deserving of attention, the comparison will be limited to the values given at pages 133 and 134 of his interesting treatise. At age 30 the value of £1. per week during sickness, up to 70 years of age is 30.0958; (see Table XLIV.) but according to the results in Table XXXVIII., it is 39.7176% for the Rural Districts; 46.3904% for the Town Districts; 40.8181% for the City Districts; 41.6730% for the Rural, Town, and City Districts combined; and 37.0322% for Scotland. These values, though widely different from those given by Mr. Ansell, are still not greater than might be expected after a careful consideration of Table XXII*., and the remarks made in the preceding pages on that table. It has been stated that the values of Annuities calculated from different mortality tables will always show less difference than the mortality tables themselves; but the same feature does not present itself in connection with sickness tables. Two different tables on the plan of Table XXII. might indicate precisely the same ratio of sickness at each age, and yet the value of a sick allowance calculated for the one table might differ widely from that for the other.

* See the table in full in the "Contributions," page 92.

In the Annuity Tables two elements only affected the results—the rate of mortality, and the rate of interest; but three elements affect the Sickness Tables—the rate of mortality, the rate of interest, and the rate of sickness. It has been shown that the rate of mortality does not necessarily increase with an increase in the rate of sickness; and therefore two classes of the population may be influenced by the same or nearly the same degree of sickness, and yet be subject to very different rates of mortality. Keeping this in view—suppose there are two Sickness Tables, A and B, having the same or nearly the same rate of sickness at each age; but that the population of Table A is subject to a high rate of mortality compared to Table B; it is evident, that although each individual of the same age in both tables would in the course of the same year of life experience the same degree of sickness, yet each person under Table B would be subject to a greater amount of sickness over the whole duration of his life; and for the simple reason, that his expectation of life is greater. Take any number of persons—say 100, on the former table at 30 years of age, and suppose their expectation, or, for greater exactitude, their equation of life, to be 30 years; one-half only of those lives would live to attain 60 years of age: but if on the other Table the equation of life were 40 years, one-half of the same number would not be dead till 70 years of age, a considerable portion of which would be subject to an increased ratio of sickness in the decennial period following age 60. It happens that there is an actual case in point to illustrate this hypothesis. The Rural Districts of England and Wales, and the Average Results for all Scotland, show almost exactly the same amount of sickness in the aggregate over the whole period of forty years, from age 30 to 70, differing by less than two-tenths of a week's sickness; the amount in the

Rural Districts of England and Wales, being	121·1448 weeks
And in the whole of Scotland	121·3164 do.

But the equation of life for the former at age 30 will be found (Table XIX.) to be 40·813 years, while for the latter it is only 37·478 years, being a difference of 3·335 years. And therefore, although there is no greater amount of sickness in the Rural Districts of England and Wales than in Scotland generally, still the value of a sick allowance in the former is greater than in the latter. According to Table XXXVIII. it will be found to be at age 30, for the

Rural Districts of England and Wales.....	£39·7176; but for
The whole of Scotland only	£37·0322

It is therefore evident that the rate of sickness is not of itself a sufficient index to the rates of premium that may be deduced therefrom. In Table XXVII. it was shown that the excess of sickness in the present results above those by Mr. Ansell was 21 per cent., but the values for sick allowance, quoted, show a difference of above 31 per cent. The feature, therefore, which was characteristic of Annuity Tables—of approximating nearer to equivalent values than the Mortality Tables from which they were deduced—does obviously not distinguish Sick Allowance Tables.

There is another feature connected with Tables of the Rates of Sickness, which will affect their money-values, independently of the

influence of the rates of mortality, and this is the graduation or distribution of sickness over the various periods of life. It might happen that two Sickness Tables gave the same amount of sickness within a given period of years, but that in the one table it was more uniformly spread over the various terms of life; not showing, as in the other table, a very low rate of sickness at the younger ages, and a very high rate at advanced ages. This circumstance, although the rate of mortality in both tables were the same, would occasion a difference in the value of sick allowances—and for two reasons; first, because the bulk of the sickness in the one table being deferred till the advanced ages, those persons dying before reaching those ages would experience a minimum amount; and second, on account of the money liabilities also being deferred, the investment of the early premiums would accumulate at interest. An inspection of Table XXV., given at page 330, vol. VIII., and the table at page 322 of the same volume, will show that such a relation exists between Mr. Ansell's Table and the general results of this inquiry; the sickness in his table being more uniform, and showing less disparity for the various ages, while the Highland Society Table runs almost parallel over the whole term of life, from 20 to 70 years of age, with the results for the three Districts.

The following abstract will show the comparative values of an allowance of 1*l.* per week in sickness, up till age 70:—

TABLE XLIV.

Age.	Mr. Ansell's Table.	ENGLAND AND WALES.				SCOTLAND.	Age.
		Rural Districts.	Town Districts.	City Districts.	Three Districts combined.	Three Districts combined.	
20	27·0881	34·68519	39·80233	35·41518	36·20420	32·7979	20
30	30·0958	39·71760	46·39042	40·81807	41·67304	37·0322	30
40	34·3204	46·56296	55·56052	46·00568	48·83092	44·1712	40
50	38·7078	53·45831	62·31153	50·16440	55·28222	51·8728	50
60	39·2316	55·15634	61·85428	42·69764	55·23260	51·5541	60

The important effect of the above differences on the stability and permanence of a Society is obvious. The distinction which has been observed in respect of single payments or premiums, will also be found to prevail in the annual premiums, as given in Table XXXIX.; and the following abstract will give a general idea of the merits of the various tables. The annual premium, as well as the sick allowance, will also terminate in this case on attaining 70 years of age.

The preceding observations will be sufficient to point out the leading features of the Sickness Tables, and to suggest the proper modes of application to the practical uses of Friendly Societies. It is not expected that the present paper will obtain anything like a general circulation among the members of those Societies, or a different style and mode of treating the subject would have been adopted. All that has been contemplated is such an exhibition of the facts and data as will afford a means of determining the various contingent risks on which the liabilities of Friendly Societies depend, and in such a manner

TABLE XLV.

Age.	Mr. Ansell's Table.	ENGLAND AND WALES.				SCOTLAND.	Age.
		Rural Districts.	Town Districts.	City Districts.	Three Districts combined.	Three Districts combined.	
20	1·3206	1·51649	1·76190	1·62891	1·60100	1·4716	20
30	1·6718	1·91441	2·31954	2·12238	2·04753	1·8552	30
40	2·2731	2·63176	3·31129	2·82968	2·83154	2·6067	40
50	3·3318	3·93305	4·87185	3·94155	4·16193	3·9639	50
60	5·4990	6·56278	7·76910	5·36326	6·70497	6·3417	60

as to be intelligible to those taking an interest in Vital Statistics; but as in addition to the prizes given, as mentioned at page 297, vol. VIII., a further inducement was held out to parties furnishing data, by a promise to publish the results, and to present copies to every contributor of data,—and as the paper will have a circulation to that extent at least,—it is proposed to add a few remarks bearing on the present condition of Friendly Societies.

One of the difficulties in the way of obtaining information was the fear, on the part of the members, that its publication might prove hurtful to particular Societies; and it was therefore necessary to come under a promise, that whatever use was made of the information, no individual Society would be referred to. But that a general idea may be formed of the condition of Friendly Societies, in respect of the adequacy of their contributions for the benefits held out by them, fifty Societies have been selected at random; and in order to make the illustration more simple, one period of life only, age 35, has been fixed on, and the rates in each of the fifty Societies in question examined and graduated to represent an allowance of 1*l.* per week during sickness, up till age 70—an annuity of 13*l.* per annum for life after 70—and a sum of 10*l.* payable at death, whenever that may happen. The corresponding rates having been determined in each Society for the above scale, they were found to average only 1*l.* 11*s.* 5*d.*; but in many of the Societies an entry money is paid, and for the same age it was found to average 1*l.* 1*s.* 9*d.* As the value of the temporary annuity at the same time of life is 17·88172, the above entry money will be equivalent to an annual contribution of about 1*s.* 3*d.*, which, added to the other item, will render the whole annual contribution 1*l.* 12*s.* 8*d.* The inadequacy of such a contribution to provide for the benefits offered must be apparent; Table XXXIX. will show, that for the single benefit of 1*l.* weekly, during sickness, the annual contribution should be 2*l.* 7*s.* 9½*d.*; and on examination of the respective Tables it will be seen that the contribution adequate to provide for the three benefits offered is 3*l.* 7*s.* annually, or more than double the actual amount collected. It is a most lamentable condition in which to find Societies aiming at designs so benevolent and praiseworthy. It may seem strange that they should endure for even a year or two; but if the amount of sickness in Table XXVII. be examined, and the early age at which members generally enter be borne in mind, it will appear

that they may survive at least twenty-five or thirty years before their insecurity may become evident to an ordinary observer. Members are generally satisfied, in the first periods of a Society, to find that the income has exceeded the expenditure, and left a respectable balance; losing sight of the great accumulations which are necessary to meet the future liabilities incidental to their increasing years and infirmities. As a Society advances, its income will invariably, in connection with a given number of members entering at a particular age, decrease with the increase of its expenditure. Suppose a Society to commence with a given number of members, all 35 years of age;—in 25 years afterwards, the income from those members, through the deaths that take place in that period, will have decreased to seven-tenths of its original amount; while its expenditure on sickness will have trebled, and the members be fast approaching a time of life at which the expenditure will be ten times the original sum. This is a state of things for which the contributions of a Society should make ample provision; but, unfortunately, few have so considered the subject as to protect themselves against such vicissitudes.

But perhaps the most simple and correct mode of looking at the liabilities of those Societies is to consider the most improved class of them, in which separate contributions are made for each benefit offered; and in this instance also the contributions answering to age 35 only will be spoken of.

No doubt, Societies may seriously err by having badly graduated tables; and it might happen that the contributions at one period of life are abundant, while at other periods they may be quite inadequate; but as a very general view only is to be taken here of the subject, reference is made to the tables themselves for information on the graduation of rates.

A distinction in the contributions for the various benefits offered, is a valuable improvement in the management of such Societies; and accordingly collateral improvements do also progress with it; for in this class of Societies it is found that the annual contribution for a sickness benefit only is nearly equal to that of the other group of Societies referred to for the whole three benefits. To secure 1*l.* per week during sickness, the contribution is 1*l.* 10*s.* 10*d.* yearly, which is only 1*s.* 10*d.* less than the yearly contribution in the other Societies for all the benefits combined; but it has already been shown, that the real risk incurred from sickness would, from members entering at age 35, require a payment of 2*l.* 7*s.* 9½*d.* annually.

No doubt, many Societies are on a much better foundation than the above statement would seem to indicate; but it has been thought the better course to refer to the Societies as a class. A subdivision, however, of the same group was found in a better condition, and the annual payment was about 2*l.* for 1*l.* per week in sickness. No Society had its sickness contributions equal to the rates in the preceding table; but the payments in one Society was much more than in the others, having been 2*l.* 6*s.* 11*d.* annually. The necessity for a general revision of the sickness rates and contributions in Friendly Societies is therefore obvious.

With respect, however, to those Societies distinguishing the rates of contributions for sums of money payable at death, or what is gene-

rally termed assurances at death, a better state of things is found to exist. The contribution on the average of those Societies is 4*s.* 7*d.* annually for 10*l.* payable at death, while the exact risk, according to Table XXXV., requires a payment of 4*s.* 4*d.* This latter sum does not include any thing for expenses of management. If it were the practice of those Societies to keep distinct funds for each of the benefits offered, and never to allow the contributions for assurances at death to be mixed up with the moneys arising from other sources, little danger need be feared by those making a provision for death; but unfortunately such a separation of the funds is rarely observed, and the general result is, that the Assurance Fund is absorbed by the deficiencies in the other business of the Society. It may here be necessary to remark, that although the preceding sum is quite adequate to meet the contingencies from death on the average of all Societies, yet there are Societies in particular localities, the members of which follow unhealthy occupations, and such a sum would not in those instances be sufficient to meet all the liabilities from death.

The most remarkable deficiency yet observed, among even those Societies having graduated rates as well as distinct contributions for the various benefits offered, is in the contributions which provide for an annuity after attaining a given age. In Table XXXI. will be found the values of Deferred Annuities, to commence at 70; and the annual premium for the same annuity may easily be obtained from the expression—

$$\lambda \delta - \lambda (1 + \theta)$$

in which δ represents the terms found at the respective ages in the same table. Accordingly, at age 35, the annual contribution or premium for an annuity of 13*l.* a year after attaining the age of 70 is 18*s.* 10*d.*; but the rate in some Societies is as low as 8*s.* 11*d.*, and an average of a number of the best Societies is 12*s.* 2 $\frac{3}{4}$ *d.*, while the most favourable rate in any individual Society in the same group was 14*s.* 4 $\frac{1}{2}$ *d.* The nature of this risk has already been referred to at page 58; and the remarks there made should be carefully considered by every one interested in the progress of Friendly Societies, as no error carries with it such distressing and melancholy consequences, as that which aggravates the cares, anxieties, and infirmities of old age, and in the decline of life throws destitute those whose youthful industry enabled them to live in comparative independence.

Another feature of Friendly Societies, particularly the older class of them, deserving of attention, is a want of graduation in the premiums or rates of contribution. This feature, although generally associated with inadequate rates, is not of itself evidence of instability, but is rather a principle which is non-equitable to the members. The better constituted Friendly Societies have long discontinued such a plan, and have now tables graduated according to age; but as there are still many Societies not so improved, it is proposed to add a few observations on the nature of this error, which is most strikingly developed in the management of Odd-Fellow Societies.

Odd-Fellow Societies, although not numerically of the same importance with Friendly Societies, are still by no means an insignificant body of the community. What is termed the Manchester Unity con-

tains at the present time, in its various ramifications over the kingdom, about 250,000 members, and its annual income is about 330,000*l*. The members are stated to have increased, during the last few years, at the rate of 25,000 per annum.

Odd-Fellow Societies are peculiar in their constitution, and differ in some respects from Friendly Societies; but so far as the subject of life contingencies is concerned, they present the most objectionable features of the worst conditioned Friendly Societies, and generally the preceding remarks will apply with greater force to them, so far as the question of stability relates. Every lodge under what is termed the "Order of Odd Fellows," is, by the 32nd General Law, compelled to exact the following rate of initiation or entry money from all members on admission, who must not be under the age of eighteen, nor above forty.

Under 35 years of age	£1	1	0
Above 35 and under 36	1	13	0
" 36 " 37	2	8	0
" 37 " 38	3	4	0
" 38 " 39	4	2	0
" 39 " 40	5	5	0

Between 18 and 35 years of age, individual lodges sometimes vary the entry money, but they must always be within the limits here assigned; (see the laws and regulations of the Independent Order of Odd Fellows, as revised and corrected agreeably to the resolutions of the Grand Committees, and adopted by the A. M. C. held at the Isle of Man, June 1841). Of late some lodges have proposed improvements in the relation between the contributions and benefits; but the following are the rates as abstracted from the regulations of several lodges, and may be regarded as the general scale adopted. In addition to the entry money already quoted, each member must make a weekly contribution of 4*d*., or a monthly contribution of 1*s*. 4*d*., being at the rate of 17*s*. 4*d*. per annum. In lieu of those payments, the members are promised, in addition to many other privileges, the following benefits:—

An Allowance of	£0	10	0	per Week during Sickness,
A Sum of	10	0	0	at Death of Member,
And a Sum of	6	0	0	at the Death of a Member's Wife.

Assuming that the allowance to the member's wife is thrown out of the question, and also that the allowance during sickness should be discontinued after attaining 70 years of age—which is to view the liabilities at a very reduced rate—at the age of 18 the preceding tables would make the annual contributions 18*s*.; but the actual contribution is 17*s*. 4*d*., to which has to be added one shilling, the value of the entry money, in yearly payments, making the total contributions 18*s*. 4*d*., and differing but little from the true amount required. But take the case of a member entering at 35 years of age, and the non-equitable character of those Societies will immediately appear. The entry money at that age is equivalent to an annual payment of 1*s*. 9*d*. yearly; to this add the contribution of 17*s*. 4*d*., and the full yearly payment will equal 19*s*. 1*d*.; but the preceding tables show that the contribution required at the same age is 1*l*. 8*s*. This striking disparity

places the injustice of the regulation beyond all sanction. To render the preceding scale of entry money equitable, those admitted at age 35 should pay 10*l.* 5*s.* 2*d.* instead of 1*l.* 13*s.*; so that, in fact, the practice of Odd-Fellow Societies holds out a bribe or bonus to one class of members of 8*l.* 12*s.* 2*d.* A similar remark is applicable to the admission at all other ages between 18 and 35; and notwithstanding the obvious injustice of such a system, Odd Fellows seem to possess a peculiar pertinacity in adhering to the false and insecure plans of old Benefit Clubs, which have long since been abandoned by every Friendly Society of any pretensions or importance. Although many Lodges and Districts have taken up the subject, very little improvement is to be expected till the near dissolution of the Societies excites serious attention; but that the danger of their position, and the non-equitable mode of payment, is already known to a considerable extent, is evident from the following extract from a Report, recently made by a Sub-Committee of a District containing 5000 members.

“So long as an influx of young members shall continue, the funds may appear to maintain a position which, to the eye of the inexperienced, may be altogether delusive. But when the original members shall have passed the meridian of life, and have begun to experience the infirmities of old age, the demands made upon the funds will then necessarily be so much larger. The stability of the institution will come then to be fairly tested.” And again they say, “If the present system is permitted to continue, which seems not only to involve within itself the elements of dissolution, but is constructed on principles which act unfairly towards the younger portion of the members—thus, for example, a young man of eighteen years is charged as much for his initiation as a man of thirty, while all the time the entry money of the former has been accumulating at compound interest; thus evidently showing that the entry money at eighteen is in reality nearly double of what it is at thirty, though undoubtedly it ought to be the reverse. . . That it is unjust, and likewise unsafe to the well-being of a Benefit Society, that each member should pay an equal sum, whatever his age may be at the time of his entry.”

It has been stated, that to render it equitable to members entering at ages 18 and 35 respectively, those at the latter age should pay 1*l.* 8*s.* annually instead of 19*s.* 1*d.* as at present; but it is not to be supposed that even this sum would render Odd-Fellow Societies safe, for it makes no provision for sickness after 70 years of age; but an inspection of Table XXIX. will show that the amount of Sickness after that period of life is equivalent to about 43 per cent. of permanent sickness; and on reference to the Appendix to the “Contributions,” Note IV., this will be found, at age 35, to require an additional contribution of 17*s.* 3*d.* yearly, making the whole 2*l.* 5*s.* 3*d.* instead of 19*s.* 1*d.*, or considerably more than double. The dissolution of the order of Odd-Fellowship, under such circumstances, is inevitable. Presuming that no change in the contributions and benefits should take place, a donation or gift of no less than 5,748,827*l.* would be required to enable the Order to meet all its liabilities; and that is taking it for granted that the affairs of those Societies are conducted with proper regard to economy, and the funds invested to yield at least 3 per cent. compound interest. But there is much

reason to fear that neither one nor the other of those conditions is fulfilled (see an able address by Mr. Thomas Barlow to the West Mendip Friendly Society); and the following abstract from the report of the Sub-Committee of the Glasgow District of Odd-Fellows, M. U., September, 1843, will show that even in a place proverbial for its economy in other matters, there is a lavish expenditure in the management of those Societies. In reading the following quotation, it will be necessary to bear in mind that the number of members in the district being 5000, the annual income must be about 4330*l*.—

“The first thing to which attention is called is the expense of opening, and of regalias—an expense of, on the average, 16*l*. 8*s*. 4½*d*., to which may be added 7*l*. for dispensation, lecture book, &c., and lodge chest—making 23*l*. 8*s*. 4½*d*., the average of opening a lodge.

“The district and delegate expenses being, as shown, 1*s*. 6*d*. per member, which, in the Glasgow District, with its 5000 members, is at the rate of 375*l*. paid for District expenses and delegates in each year.

“The sum of 2*s*. 6*d*. paid for the surgeon to attend members is, over the whole district, at the rate of 625*l*. in the year. Current lodge expenses is returned on the average of 2*s*. per member, being 500*l*. paid in each year for lodge-room rent, &c.; being in all 1500*l*. paid in the Glasgow District for the working of the Order—a sum which will soon convince the most incredulous that the benefits of the Order will soon cease if such an expenditure is allowed to continue.”

Recently, however, a change has been proposed in the rates and contributions of the General Order of Odd Fellows by the Glasgow A. M. C. And although those terms would be greatly under what are necessary to secure the stability of the Society, still the opposition offered to such innovation seems to threaten a more immediate dissolution to the Society than even that which the inadequate nature of the contributions would effect.

It would seem that each Lodge, by a set of bye-laws, can regulate its own weekly contributions; and as an example of the curious errors into which those who are not thoroughly acquainted with such subjects will occasionally fall, it may be mentioned that one of the Lodges referred to in the preceding Report, apprehending the danger of its position under the general scale adopted by the Order, proposed new terms with a view to greater safety; and it oddly enough happens that the new rates produce a greater deficiency than the old, to the extent of 5*s*. 8*d*. annually to each member at the age of 35; and proportionate deficiencies are found at other ages.

The average age of the members in the Manchester Unity is stated by the Board of Directors to be 32 years, and the gross amount of sickness experienced by 243,122 members, being the average number during the year 1844, was 226,917 weeks, or .933 to each member. On reference to Table XXV., or to page 92 of the “Contributions,” it will be found that, at age 32, the average sickness per annum is .9250 weeks, or when the necessary correction for the maximum ages is applied in the former case, producing 6 days, 11 hours, in both instances to each member yearly. It must, therefore, be very gratifying to every one interested in the progress of Benefit Associations, for the working and middle classes to find, that the amount of sickness among the members of

those clubs, however variously constituted, shows so near an agreement, and effect almost a perfect realization of a permanent law of sickness.

Again, as to the mortality experienced by the Order, the same conformity to the preceding results will be found to manifest itself. Every previous investigation into the laws of mortality produced the belief, that the lives of the working classes of the country were of shorter duration than those of the upper classes, and also of less value than the average results for the whole country; but here we have a confirmation of the same fact, that the industrious workmen of the country experience an increased duration of life.

At age 32, the mortality of males for the whole Kingdom is 1 in 95; the mortality in the Manchester Unity is 1 in 106; and, according to the results as given in this paper, for all classes in Friendly Societies, at age 32, the mortality is 1 in 128. To further illustrate this point of the inquiry the following abstract will be useful, being an analysis of the actual results in the Manchester Unity of Odd-Fellows, for the year 1844.

District.	Average No. of Members during 1844.	Deaths of Members.	Deaths of Members' Wives.	No. of Weeks' Sickness.	No. of Members out of which		Average sickness yearly to each Member expressed in Weeks.
					One Member died.	One Member's Wife died.	
Rural	66208	608	434	57795	108·89	152·55	0·873
Town	77070	700	554	70435	110·10	139·01	0·913
City	99848	978	662	98687	102·09	150·83	0·988
Whole Unity	243126	2286	1650	226917	106·35	147·34	0·933

In explanation of the above table, it may be stated that the Rural District is composed of those places the population of which is under 5,000, the Town District of those places the population of which is 5,000 and under 30,000, and the City District of such places as have a population of 30,000 and upwards.

During the year 1844 it will be seen that the mortality for the whole Unity was, as already stated, about one to every 106 members, while for the Rural Districts it was one in 109; for the Town Districts it was one in 110; and for the City Districts it was one in 102.

The average amount of sickness to each member during the same year was, for the—

Rural Districts	0·873 weeks, or 6 days 3 hours.
Town Districts	0·913 " 6 " 9 "
City Districts	0·988 " 6 " 22 "
Whole Unity	0·933 " 6 " 13 "

But according to the results, already adverted to, the average amount of sickness for the same districts would be—

Rural Districts	0·863 weeks, or 6 days 1 hours.
Town Districts	0·929 " 6 " 12 "
City Districts	1·148 " 8 " 1 "
Three Districts combined	0·925 " 6 " 11 "

In instituting the above comparison, it should be kept in view that the actual ages of all the members in the Unity are unknown ; but as the Directors, in their Report, have stated the average age to be 32, that age has been taken as the point of comparison. For refined purposes, objections can be brought against this step, but for the present illustration it is sufficiently correct.

Considering that the above results from the experience of the Order relate to one year only, it is the more remarkable to find them approximate so closely with the results given in the early part of this contribution from facts extending over several years.

It is evident then that the Manchester Unity of Odd-Fellows is subject to as much sickness and mortality as that shown in this paper. The evidence thus derived from the working of the Order itself, should be a sufficient answer to those who have hitherto argued, that the favourable circumstances in which the members were placed exposed them to less hazards than the members of ordinary Friendly Societies. The facts of the case, it will be seen, do not support this supposition. It is, therefore, obvious that rates of contributions less favourable than those set forth in the tables here given, would be unsafe for the guidance of the Order.

Again, it has been said that the deficiencies in the rates of contribution will be amply compensated for by the donations to the Society, and the number of members who never seek relief from it. The latter part of the argument clearly falls to the ground, as the actual amount of relief given is quite equal to that anticipated by the tables ; and as to the benefits to be derived from donations, which some have represented erroneously at 20 per cent. of the whole income, it will be found that the amount from all sundry items not only does not help the contributions of the Order, but is inadequate to meet the expenses of management, being only 42 per cent. of that amount. It is, therefore, imperative on the Order to graduate their rates on a scale equivalent at least to that given in the tables already referred to.

The following is the income and expenditure for the whole Order during the year 1844 :—

<i>Income.</i>		£	s.	d.
From Contributions		245,847	13	8
„ Initiations, or Entry Money.....		49,382	9	1
„ Fines, Goods, and Sundries		29,978	8	5
Total Income during 1844		325,208	11	2

<i>Expenditure.</i>		£	s.	d.
Paid to Sick Members.....		107,440	8	11
„ for Funerals, District and Widow and Orphans' Fund		62,742	11	6
„ for Sundries		71,420	16	4
Total Expenditure during 1844		241,603	16	9
Surplus of Income over Expenditure for the year 1844		83,604	14	5
or an annual saving to each member of nearly 7s.				

The following will give an idea of the expenses of management of the Order :—

Ratio of Expenses of Management to the whole Expenditure.....	29 per cent.
„ to the Amount paid to Sick Members.....	66 „
„ to the Amount paid for Funerals.....	113 „
„ to the Income from Contributions	28 „

It is evident that if such an application of the funds be permitted to continue, the dissolution of the Order must be fast approaching. The Directors of the Unity are therefore most imperatively called on to interpose their influence to prevent such a lavish expenditure on the part of the Lodges. It will be seen that it is not to one year alone that this enormous outlay is confined, but must have been peculiar to the whole history of the Order. In 1834 the number of members in the Order was about 60,000, and at the beginning of the present year the number was 251,727—increase about 19,000 per annum; but in connection with this, a remarkable fact deserving of serious consideration is brought to light by the Directors. They state that “the amount of initiation-money which was received from members in 1844 being no less a sum than 49,382*l.*, it will be discovered on reference to the list of Lodges, that our increase of members in that year was only 21,461, and by these returns it is clearly proved that upwards of 40,000 members were initiated in 1844; thereby at once affirming, that upwards of 20,000 members left the Order in one year, after paying their initiation-money and contributions for a length of time. We are of opinion that the particular attention of the members of the Order should be drawn to this important fact, with a view of arriving at the true cause why so many leave the Order.” At this rate the total amount of initiation-money received by the Order ought at this time to have realized a capital of 750,000*l.* at least, without any augmentations from other contributions; but it is understood that the whole capital of the Order does not exceed 700,000*l.*: so that the Unity now finds itself in this position,—that they have been proceeding on a plan, by which the contributions required by the Order are not sufficient to meet the current expenditure, and that they have been actually falling back on the initiation-money of the members. Further argument is not needed to show the insecurity of any institution when based on such a system. And it ought to be kept in view that this state of things prevails when the bulk of the members must be very young, and are represented at an average age of 32—a period of life at which the rate of sickness is not equal to one week per annum to each person. Where then is the boasted provision so loudly proclaimed by some to meet the vicissitudes and infirmities of after-life, when the rate of sickness per annum will be from ten to twenty weeks to each member? It is astonishing that people can be so blind to their own interest, and not see the awful calamity which awaits them unless decided improvements are effected in the condition of the Order. In Manchester, the fountain head of the Unity, the greatest possible opposition has been given to the recent changes suggested by the A.M.C., and carried out by the G. M. and Board of Directors. The most angry and violent manifestation of feeling has evinced itself, threatening dangerous and fearful consequences to the safety of the whole Order; and yet in the same district, palpable and obvious examples are to be found of the utter inability of the Order to have survived long under its former deplorable condition. In Manchester itself there are six Lodges, established on an average of twelve years, and, on the 1st of January of the present year, they contained 530 members, and were possessed of funds—to what amount will it be believed possible? why the lamentably small sum of 91*l.* 13*s.* 6*d.*, or less than one-twelfth of the entry-money which

must have been paid into the Lodges. Again, there are twelve other Lodges, established for an average period of $4\frac{1}{4}$ years, and containing 613 members, and their total amount of funds is 313*l.* 15*s.* only; and further of thirty-three Lodges which have been open for an average period of twelve years, but recently suspended, and which contain 2,774 members, the gross amount of funds they were possessed of on the 1st of January, 1845, was only 1379*l.* 6*s.* 6*d.*, or not one-half of the initiation-money paid into the Lodges. Yet, with such striking and obvious signs of decay, the Board of Directors are forced to contend against the most ill-conceived opposition. No one with his eyes open can fail to see that the Unity has arrived at that period of its history when its income must of necessity be unable to meet the required expenditure. Out of 100 Lodges, containing 11,080 members, the whole of their accumulated capital does not amount to 13*s.* per member.

It really seems surprising that any evidence beyond this should be needed to bring conviction to the minds of Odd Fellows, of the urgent need of immediate reform. In some Lodges the expense of management absolutely exceeds the amount paid for sick allowance; and in many instances amounts to a sum varying from 8*s.* to 13*s.* yearly, to each member; while in others more than half the original contributions are squandered away in the modes of management adopted, and in one district, among 2,800 members, the expense of management during last year was about 1100*l.* Nothing could stand this long, even although the rates of contributions were otherwise well graduated. Take the following as an example of the reckless expenditure indulged in by some Lodges. That it may not be thought an isolated instance, but of serious and fearful importance, it is only right to mention that the following figures show the income and expenditure of fourteen different districts, containing 297 Lodges and 17,059 members, and therefore to be considered by all well-wishers of the Order as demanding immediate redress.

	<i>Income.</i>		
	£	s.	d.
Amount of Contributions received	21,402	15	7
Amount of Initiations	12,435	16	7
Amount of Fines, Goods, Sundries	3,712	4	9
Total Income during 1844	37,550	15	11

	<i>Expenditure.</i>		
	£	s.	d.
Amount paid to Sick Members.....	6,998	18	3
Amount for Funerals, Districts, and Widow and Orphan Funds....	7,566	2	4
Amount for Sundries	10,497	12	9
Total Expenditure for 1844	25,062	13	4
Surplus of Income over Expenditure for the year 1844	12,488	2	7

This perhaps contains facts of the most extraordinary kind ever yet brought before the public. Many even among the Odd Fellows themselves do not see the great moral and social revolution which the existence of such provident institutions are capable of effecting: but so long as a system of destructive and hurtful management prevails, no national or public blessing can flow from them. But reform the abuses—let the working man understand under what a delusive shadow he has placed his hopes—let him see the dangerous gulf into

which all the funds of the Order are being carried, and then reflect what must be its fate twenty years hence, if the following awful exhibition of facts is permitted—and there is no doubt he will find that his best interests can only be maintained by a speedy removal of the fatal abuses.

The following is the state of the case in the fourteen districts just referred to, which contain 297 lodges and 17,059 members.

Ratio of Initiation Money to Contributions.....	58 per cent.
Ratio of Expenses of Management to Do.	49 "
Ratio of Expenses of Management to Amount paid for Funerals....	138 "
Ratio of Expenses of Management to Amount paid for Sick Allowance	150 "

Expenses of management actually 150 per cent. of that paid away to sick members! To relieve and give assistance to members during sickness ought to be, and is, the ostensible object of the institution; but here we have an example of that great virtue of charity and social refinement being sacrificed to perhaps the idle indulgence and intemperate appetites of a few men, who, when the cause of the sick and the distressed, the widow and the orphan is pleaded, are ready to rise in noisy turbulence to crush the well-intentioned endeavours of those who attempt to sweep away such intolerable abuses.

The recent opposition to the Board of Directors is most reprehensible, and no well directed mind can look upon it otherwise than with the deepest regret. There never has existed any social and provident institution of any thing like the importance of the Manchester Unity of Odd Fellows; neither perhaps did there ever exist so gross abuses in any other. The real and essential objects of the Order have been overlooked and rendered secondary to idle pomp and parade; and those funds which were meant to provide for disease and old age have been squandered away on the follies and baubles of youth.

Now, however, that the Board of Directors have made a step in the right direction, let them be supported warmly and cordially, and the members must soon come to feel that the real interests and objects of the Unity can be promoted by so doing. This much done, and a second and greater reformation must soon follow, which will place it on a permanent foundation, and render it the most gigantic and useful institution of the day. Few at the present time understand the wonderful operation going on in the social state towards its own regeneration. Poor laws and other nostrums seem as much to irritate as allay the disease; but here we have a self-supporting institution which, although hitherto managed with a total disregard to all science and practical experience, yet contains so many germs of benevolence, love, and social order, that no less than 40,000 yearly of the hard working sons of toil and labour embrace its genial comforts and solacing charms. What then must be its influence, if once guided by the lights of reason, science, and experience, when confidence has inspired the nation in the judgment of its laws and the integrity and practicability of its principles! There is little doubt that thousands for hundreds would join its ranks; and that the national protection against vice and its horrors, which political laws have failed to secure, would be wrought out by the social improvement among the working classes themselves. But to make such an institution permanent and

secure, its means must be commensurate with the end in view; its monetary calculations must be correct, and in obedience to those laws of sickness and mortality which are known to influence its whole transactions. Before concluding, therefore, let us examine whether the tables recently prepared by the G. M. and Board of Directors are calculated to meet the objects intended.

For convenience in comparison, we shall take the case of a member who provides for 1*l.* during sickness, 20*l.* at death, and 10*l.* at the death of his wife.

According to the scale recently prepared by the Board of Directors, and now recommended to be adopted by the Order, the payment required in No. 1, or Manufacturing Class, is 10*l.* per week, or 2*l.* 3*s.* 4*d.* yearly; but the initiation money under 35 years of age is 1*l.* 1*s.* 0*d.*, which is equal to an annual payment of from 1*s.* to 1*s.* 9*d.*, differing with age from 18 to 35. Well then, as the average age of all the members in the unity is said to be 32 years, let us try the case of a person at that term of life, as it will show to what extent the proposed scale may be likely to affect the stability of the Order.

It will be found that the annual payment at age 32 for an allowance of 1*l.* per week during sickness, to continue to the extreme of life, is £3 8 9

For 20*l.* at death ("Contributions," page 116, age 32) 0 7 5

And as the deaths of members' wives in the Order is
in the ratio of 1,650 to 2,286 of the members them-
selves, the payment necessary to provide 10*l.* at the
death of a member's wife is 0 2 9

Total payment required for the three benefits promised }
by the order £3 18 11

It will thus be seen that the benefits still promised by the Order are much greater than it is possible to provide with their proposed scale of payments. In the above instance there is a deficiency of about 1*l.* 14*s.* to each person yearly, or in other words, his payments are about 43 per cent. too low for that term of life. After the recently proposed augmentation of the scale of payments, this may seem to be still a remarkable deficiency, but the facts of the case bear it out. For No. 2, or Agricultural Class, the deficiency is still greater. In fact although the recent step taken by the Glasgow A.M.C., and acted on by the Board of Directors, is to be applauded, still it should only be regarded as a mere shadow of coming events. Any one who will take the trouble to investigate the subject will soon discover the inadequacy of the scale proposed to provide for the benefits promised to the members. But there is another error connected with the scale, which it is to be hoped will be soon remedied; and that is, that no distinction is made for difference of age. It is in part compensated for, but that to a most trifling extent, by a difference in the initiation or entry-money after 35 years of age. These improvements, however, with others, must soon be effected, if the Board of Directors persevere in the course on which they have so laudably entered.

The average age of the members is 32; and if the benefits for which the members provided were of the preceding amount, it will be

seen that the deficiency in the contribution of each will be 1*l.* 14*s.* yearly. But let us suppose that the amounts provided for are only one-half of those, (which is about the actual average) that is 10*s.* per week during sickness, 10*l.* at the death of a member, and 5*l.* at the death of a member's wife; then the deficiency in the contribution, instead of being 1*l.* 14*s.*, will be only 17*s.* yearly.

The present value of an annuity on a life of 32 is 19 98129 (see "Contributions," p. 112), or nearly twenty years' purchase; so that if the contributions are to continue on the scale now proposed, each member would need to pay down at present the sum of 16*l.* 19*s.* 8*d.* (16·984,) to make up future deficiencies in his annual payments.

But as there are 251,727 members in the Unity, those two last items multiplied together will produce the sum of 4,275,181*l.* From this subtract 700,000*l.*, the present capital stock of the Order, and 3,575,181*l.* will be the payment that should at this moment be made in order to place Odd Fellows on a secure foundation, with their proposed scale of contributions.

This shows a much smaller deficiency under the proposed rates of contributions than appeared under the former rates, which is stated at page 67 to be 5,748,827*l.*; because the deficiency to each member was under that estimate much greater than under the recently proposed scale.

The members, however, must keep in view, that should no such donation be now made to the Society (and it is not likely that such donation will be made,) then the ultimate deficiency under their proposed rates will be much more than 3,575,181*l.*; for in order to enable that sum to meet all the demands on the Society, it should be invested to yield 3 per cent. compound interest; but as there is no chance of this being done, the ultimate deficiency will be about ten millions.

It is evident that the Order of Odd Fellows stands in need of much improvement; and considering that thirty-three Members of Parliament, and between six and seven hundred of the Clergy, as well as many other elevated names, are said to be enrolled as members, it is remarkable that some gentleman of influence and scientific attainments should not before this have given attention to the lamentable condition in which his too confiding brethren of the Order are placed, and have done something to raise the Unity to the common level at least of the Friendly Societies throughout the kingdom.

There is another class of Societies which attempts to carry out the general principles of Friendly Societies; but they are, like the Odd Fellow Societies, modelled after the very rudest shape in which Benefit Clubs were formed fifty years ago: and so far as relates to their contributions and benefits, almost nothing further is necessary to be stated. "Reclabite" is the name by which those Societies are known; and every member has to come under an obligation to abstain from intoxicating liquors, and to discountenance by every lawful means in his power the drinking usages of society.

The terms on which members are admitted are according to the following scale:—entrance money at age 16 is 5*s.*, and at 40 it increases to 2*l.* 10*s.*; the monthly contribution for all ages is 1*s.* 4*d.*, or 17*s.* 4*d.* annually. The benefits promised are an allowance of 10*s.* per week in sickness and a deferred annuity of 5*s.* weekly after 70 years of age.

To young members entering the Rechabite Societies, or Tents, as they are termed, at the age of 16, the actual premium for the above benefits, making allowance for entry money, should be 1*l.* 2*s.* annually; at age 40, also allowing for entrance money, the annual premium should be 2*l.* 10*s.* 2*d.*

It will thus be seen, that by the youngest member at 16 there is an ultimate loss of 4*s.* 8*d.* annually, and by the member aged 40 there is a loss of 1*l.* 12*s.* 10*d.* annually, provided that it were possible to sustain such losses; but it is needless to add, that permanence is not to be expected with Societies so constituted. Not only do the Rechabite Societies, in common with Odd-Fellow Societies, perpetrate an injustice on the younger members by the above disparity in the payments; but that injustice is further augmented by levying a uniform tax of 3*s.* yearly, without distinction of age, for funeral money, the sum of 10*l.* being payable on the death of each member. The discouragement given to drinking usages, and the practice of temperance enjoined by Rechabites, is deserving of every support, and is well calculated to increase the comforts and elevate the moral and political condition of the working classes; but it is to be regretted that the monetary foundation on which the Societies are built should be destined to effect their overthrow at so early a period.

A class of Societies, of which there are about two thousand in the kingdom, pass under the name of the Courts of Foresters, and their object is also to provide against sickness and death; members are admitted between the ages of 18 and 38, on the same terms, and participate to the same extent in the benefits offered. It is therefore unnecessary to add any thing to what has already been remarked of Odd Fellows and Rechabite Societies, as the same observations are equally applicable to all.

The illustrations of the condition of the various grades of Friendly Societies, given in the preceding pages, have been made as general as possible, in order to insure their being readily understood by the members to whom they were more particularly addressed. It will be necessary, in every instance where any practical application is made of the facts presented, to use every caution in the selection of those examples which strictly belong to the case in point; and it is to be hoped that the marked differences which have been shown to prevail between the rates of mortality and sickness, under the many modifications as to condition and peculiarity of employment and rank in society, will be a sufficient guarantee against the indiscriminate use of the general results for the government of individual classes whose circumstances differ widely.

Should the present contribution in any degree advance the science of Vital Statistics, and place the provident and self-supporting institutions of the people on a more permanent foundation, the highest wish of the writer, in venturing on so important a subject, will be consummated.

On the Number and Increase of the Jews in the Prussian States, and their Distribution in the Provinces and Towns. Translated from a Paper by M. HOFFMANN. By C. R. WELD, Barrister at Law.

THE number of Jews in the Prussian States amounted at the end of 1840 to nearly 195,000, the census of 1822 gave a return of nearly 145,000, showing an increase of 50,000, or 35 per cent. during the space of 18 years. The Christian inhabitants at the end of 1822 were computed at upwards of 11,519,000, at the close of 1840 at 14,734,000, showing an increase during 18 years of 3,215,000, or nearly 28 in 100. Thus the Jews during this space of time increased more rapidly than the Christians. The increase both amongst Jews and Christians consisted principally in the excess of births over deaths. This during the above 18 years amounted amongst the Jews to 29 in 100 living; amongst the Christians to 21 in 100 only. These numbers undoubtedly denote an increase of population not to be accounted for, except by supposing that immigration has exceeded emigration, or that the last census was more accurately taken, so that in the later lists individuals are included who were overlooked in the earlier. The apparent increase arising from the imperfection of the earlier censuses decreases of course in proportion to the space of time taken for comparison, because in a succession of years, part of those at first omitted, die or emigrate.

The actual increase produced by excess of immigration will, on the contrary, ever increase with the time when a series of favourable circumstances conspire to attract more individuals into a country, than to leave it.

Such has been the case with respect to the Prussian States since 1822, as they have offered greater advantages and facilities for profit and enjoyment than the neighbouring kingdoms. Thus it is highly probable that the greater proportion of the increase not consisting in an excess of births, is to be attributed to immigration. This probably amounts among Christians to somewhat less than $6\frac{1}{2}$ in 100; among Jews to somewhat more.

It is desirable at the same time to state, that the population of the Prussian States was increased in 1834 by the acquisition of the Principality of Lichtenberg, which at the close of that year contained

34,846 Christians.
410 Jews.
<hr style="width: 50%; margin: 0;"/>
35,256

These figures are too insignificant to cause any important difference in the foregoing proportions, whilst the increase in the population of the Prussian States, obtained by this acquisition, does not amount to more than one-fourth in 100. But the influence of change of Religion must not be wholly overlooked. During the 18 years under consideration 22,000 Jews inhabiting the Prussian States went over to Christianity, whilst on the other hand there is no record of any Christian having embraced Judaism. The decrease of Jews thus produced, amounted to nearly $1\frac{1}{2}$ in 100, but this will have no essential influence on the proportions under examination, as the total number of Christians will not be

augmented by so much as the fiftieth part of 1 in 100, according to the number at the close of 1822.

The more rapid increase of the Jews is thus evidently produced by an excess of births over deaths. Generally the annual number of marriages (the proportions of births and deaths remaining the same) increases with the number of the inhabitants, although the increase by no means keeps pace with the increase of population. It is not therefore merely with the number of inhabitants at the beginning of the period of which we treat, that we have to do, but we must also take into consideration the changes in the population, marked by the subsequent census reaching to the end of the year 1840. The seven censuses which have been taken at intervals of three years, between 1822 and 1840, show the population for this period to be on the average.

13,006,000 Christians.
169,000 Jews.

and out of 100,000 of these it appears that there were

	Amongst Christians.	Amongst Jews.
Marriages.....	893	719
Children born	4,001	3,546
Deaths, including still-born Children.....	2,961	2,161

It is evident from these numbers that the more rapid increase among the Jews is not to be accounted for by the larger proportion of marriages, as it appears that there is 1 marriage in 139 amongst them, while in the case of the Christians the marriages amounted to 1 in 112. Jewish marriages are therefore either more fruitful or of longer duration, and the sequel will show that the latter is the more probable conclusion. If, on an average, as great a number died yearly among Jews as among Christians, there would still be, notwithstanding the foregoing proportions, a more rapid increase among Christians; for this increase is not produced by the proportion of the new born to the number of existing marriages, but by the proportion of the new born to the number of those living at the same time. According to this mode of calculation Christians had 1 born in 22 living, the Jews not quite 1 in 28. Among the Christians 1 in not quite 34 died yearly; had the mortality been as great among the Jews the excess of births over deaths, owing to the smaller proportion of the new born, would evidently have been less than among Christians:—but the mortality of the Jews was very much less. They had scarcely 1 death annually in 46 living, and taking the same number of living there were not quite 3 deaths among Jews to 4 among Christians. In exact numbers, the yearly increase in 100,000 amounted among Jews to 1385, among Christians to only 1040.

This great difference then is almost entirely caused by the lesser mortality amongst the Jews, in consequence of which the average duration of their middle life is considerably longer than amongst Christians. With the exception of the period beyond 70 years of age, the Jews have, in every stage of life, fewer deaths in a given number than the Christians, and the difference of mortality is greatest at the beginning of life and at the period immediately preceding extreme old

age, as the following numbers show. Amongst 100,000 there were on the average yearly—

	Christians.	Jews.
Still-born	143	89
Died before the completion of their first year.....	697	459
Died during the following 4 years, and before the completion of their fifth year	477	386
Died after 5 years of age, and before the completion of their fourteenth year	202	151
Died after the completion of their fourteenth year, and before their 25th year	155	123
Died after the completion of their twenty-fifth year, and before their forty-fifth year	334	231
Died after the completion of their forty-fifth year, and before their seventieth year	614	392
After the completion of their seventieth year.....	339	330
	<hr/> 2,961	<hr/> 2,161

It will be observed that so many fewer Jews than Christians died in infancy as almost to compensate for the lesser number of births before noticed. The Jews had on the average 455 fewer born in 100,000 than the Christians, but also, including the still-born, 434 fewer deaths before the accomplishment of the fourteenth year. Whence we must conclude that the Jews preserve their children from baneful influences both before and after birth with greater care than Christians do. At least three-fourths of all the inhabitants of the State consist of families who gain their livelihood by labour arising from husbandry, and of the rest a considerable portion are employed in manufactories, in which women and children as well as men work. However, it is with the rarest exceptions that Jewish women take part in these labours. On the contrary, Jewesses, especially when pregnant or suckling, are commonly employed in household occupations within their own dwellings, and hence are not compelled to use those exertions which may prove injurious to the unborn child or to the infant. The effect that these measures have in preserving the child is rendered apparent by the following numbers, —in 100,000 children there were 3569 still-born among the Christians, and 17,413 of those born living died in their first year; but the Jews had on the average only 2524 still-born in 100,000, and of those born alive only 12,935 died under one year of age. Among the Christians 1 in 28 was still-born, among the Jews only 1 in 40, and while the Christians lost by death in the first year almost one-sixth of their children, the Jews only lost one-eighth.

The lesser mortality among Jews after the expiration of childhood, may generally be explained by the fact that these people rarely select any mode of livelihood, the occupations of which are perilous to life. No Jews are to be found amongst sailors or miners, and but seldom amongst masons, carpenters, or machine makers. Yet the great difference in the mortality is far from being satisfactorily explained, because the number who perish by following the above occupations is too small to account for it, and because the greatest discrepancy exists not so much in middle age as in the later years of life, namely between 45 and 70, when men, although following such employments,

are generally exposed to fewer accidents, because at an advanced age they are more disposed to avoid danger.

A far more important influence is found in the fact that the Jew lives moderately; and is especially so little addicted to the abuse of intoxicating liquors, that a drunken Jew is a most rare spectacle, whereas the majority of Christians (in the Prussian States), suffer in later life from the daily use of brandy. That, which hard labour, combined with plentiful and nutritious though coarse food, renders very slightly injurious, or possibly a really beneficial stimulant, manifestly becomes injurious as an over stimulant when there is less physical exertion and the digestive powers have become weaker.

To this the great difference in the mortality between the Jews and Christians is chiefly to be ascribed, especially when it occurs between the ages of 45 and 70; for we find that where there are 47 deaths among Christians between these ages, there are not more than 30 among Jews.

Although, on the average, the number of marriages which are contracted annually by Jews, is fewer than among Christians, it does not at all follow that the number of married in proportion to the number of living inhabitants is fewer among Jews than among Christians. The number of married individuals in the Prussian States is only taken with reference to the whole population without distinction of religious profession. The proportions of existing marriages amongst Jews and Christians therefore is not given; but it is highly probable that the duration of Jewish marriages is longer than of Christian marriages, because, as has been shown before, the duration of middle life is generally longer amongst them. Besides, they generally marry earlier than Christians.

If those marriages which have been recently contracted, be divided into early and late marriages, and marriages entered into merely for mutual support; we gather from the collective returns of the 18 years under consideration the following average proportions.

In 100,000 living there were among the annual marriages on an average:—

	Christians.		Jews.	
Early.....	666	.....	562	When the bridegroom had not completed his 45th year, and the bride her 40th year.
Late	189	.....	122	When the bridegroom had not completed his 60th year, and the bride her 45th year.
For mutual support	38	.....	35	When the bridegroom was 60 and the bride 45 at the time of marriage.
	<hr/> 893		<hr/> 719	

Thus it follows, that amongst 1000 recently-contracted marriages are found:—

Christians.		Jews.	
746	.....	782	Early marriages.
212	.....	170	Late.
42	.....	48	For mutual support.

Thus it appears that the Jews contracted 36 more early marriages than the Christians, and on the other hand the Christians had contracted 42 more in later life than the Jews. The number of marriages

formed merely for mutual support, at an age when children can no longer be expected as their fruit, is too insignificant to notice.

If in the course of the foregoing examination it has appeared, that the Jews had scarcely so many married amongst the same number living as the Christians, this must be adduced as a proof of their greater continence, since in the same number of living they have much fewer illegitimate children than the Christians. During the period of which we speak there were on an average among 100,000 living, born annually—

	Christians.	Jews.
Legitimate Children	3,721	3,479
Illegitimate Children.....	280	67
Total.....	4,001	3,546

According to this there were in the same number of living four times fewer illegitimate births amongst the Jews, than amongst Christians. We cannot draw a conclusion as to the general state of morality from the greater or less number of illegitimate births; for in order to do this, many things, with reference to the peculiar situation of the people generally, must be well considered. Thus, in the Prussian States it is remarked, that in those provinces where sound education has been most generally diffused, and even among the lower orders, the greatest annual proportion of illegitimate births prevails; and these are found in many ways to be so prejudicial, that it is absolutely necessary, to any essential improvement in the social condition of the population, that they should diminish.

It will not be devoid of interest to mention here, the difference which exists in the Prussian States, between Jews and Christians, in the proportions of the sexes of children. It is a well-known fact, that more boys than girls are born; and it has further been observed, that in Germany and France the excess of boys is considerably greater in legitimate than illegitimate births. But it does not appear to have been hitherto noticed, except in the Prussian States, that taking a long period of time, and a large number of children, there is on the average a greater number of boys in legitimate, and a smaller in illegitimate, births, among Jews than Christians. During the 18 years in question there were, on the average throughout the Prussian States, to 10,000 female children, the following number of males:—

	Christians.	Jews.
Legitimate	10,607	10,936
Illegitimate	10,360	10,118

Whatever may be the real cause of the remarkable difference in these proportions, it appears to be due to some influence of the moral feelings; and, admitting this explanation, it becomes by no means unimportant to observe, that according to the foregoing returns, this influence is far more effective among Jews than among Christians.

The Jews are very unequally divided among the different provinces of the Prussian States. The census, at the end of the year 1840 places them in round numbers as follows:—

		Proportion per 1000—	
Prussia	26,000	Posen	396
Posen	77,000	Silesia	137
Brandenburg	14,000	Rhine Provinces....	136
Pomerania	7,000	Prussia	132
Silesia	27,000	Westphalia	71
Saxony	4,000	Brandenburg	71
Westphalia	14,000	Pomerania	35
Rhine Provinces	26,000	Saxony	22
	195,000		1,000

According to this table nearly two-fifths of the Jewish population were inhabiting the province of Posen. The three provinces of Silesia, Prussia, and the Rhine provinces together, contain but little above two-fifths more, and nearly in equal proportions. The remaining one-fifth was dispersed over the four other provinces, but in very unequal proportions; so that in Saxony, for instance, there was only about one-ninth of this fifth, or one forty-fifth of the whole. The Jews living in each province bore the following proportion to the inhabitants. In 100,000 inhabitants there were the following numbers of Jews in each province:—

Posen	6,249	Silesia	934
Prussia	1,116	Brandenburg	740
Rhine Provinces	1,017	Pomerania	647
Westphalia	995	Saxony	260

The following table shows the number of inhabitants to each Jew in the Prussian States:—

Posen	1 Jew in 16 Inhabitants.
Prussia	1 " 90 "
Rhenish Provinces	1 " 98 "
Westphalia	1 " 101 "
Silesia	1 " 107 "
Brandenburg	1 " 135 "
Pomerania	1 " 155 "
Saxony	1 " 385 "
And in all the States	1 " 77 "

In the individual provinces the Jews are very unequally distributed; thus in Prussia they are only found in the western part; in Silesia they are generally found in the upper portion; and in Westphalia they are found in the electorate of Cologne, Münster, Paderborn, and their territories; in Pomerania the district of Stralsund contained only 171, and in Saxony the district of Moseberg had only 442.

The division of Jews into local communities is of great importance in its consequences, because it is only where their Societies are numerous and opulent that they can support institutions of their own, for the instruction of youth, and for the care of the sick and poor; when this is not possible, owing to the inadequate number of the members of the community, and to their poverty, the want is very imperfectly supplied by recourse to the nearest Institution endowed for the same purposes by Christians. In this respect a great difference exists amongst the several provinces of the Prussian States. In none of the districts represented in the estates of the towns in the province

of Westphalia do even 300 Jews reside together; thus, it is very difficult for them to possess any well-ordered public Institution of importance. In the province of the Rhine also, the Jews are distributed into such insignificant masses, that the largest community, which is at Cologne, does not contain more than 585 members. In the Rhenish towns of Knefeld, Düsseldorf, Bonn, and Kreuznach, alone, are to be found Jewish communities consisting of more than 300 persons: in all other towns in this province, how rich soever they may be in people and traffic, the Jewish communities are still smaller, and of the 26,000 Jews in the Rhenish province, more than 16,000 are scattered about in country towns and villages. The largest Jewish community in the province of Saxony is to be found at Magdeburg, and yet it contains but 559 members; in Halberstadt there are 342 Jews, but in no other towns in this province do the Jews amount to 300. At the same time by far the largest proportion of Jews live in the towns, the country making a return of only one-seventh part of the whole Jewish population. In the province of Brandenburg, Berlin contains the most opulent Jewish community in the Prussian States, which, according to the latest census, contains 6458 members, a number exceeded only by the Jews in the town of Posen. In Frankfort on the Oder there were 648, in Penzlau 371, and in Landsberg on the Weser 349. In no other district of this province did the Jews amount to 300. The four towns above-named contained four-sevenths of all the living Jews in the province; by far the greater part of the remaining three-sevenths was found in small groups in the towns. The number of Jews residing in the country was very trifling, and amounted scarcely to one-fourteenth part of the whole body of Jews in the province. In the province of Pomerania, Stettin, and Stolpen were the only towns containing more than 300 Jews, and only one-sixteenth of all the Jews in the province were found in the country districts. An examination throughout all the Prussian States makes it apparent, that by far the greatest number of Jews are to be found where the Polish language and the Roman Catholic religion prevail. In the southern parts of Eastern Prussia, however, where the language is almost universally Polish, and the inhabitants are Protestants, there are very few Jews.

As early as the 11th March, 1812, we find that many Jewish families became domiciled in the Prussian States with consent of the authorities, and were admitted to the rights of citizenship, on condition "that they assumed permanent family names, and that in their commercial transactions, as also in their written contracts and legal testamentary documents, they use German, or some other living language, and subscribe their names in none other but German or Latin characters."

With the fulfilment of these conditions they were, as far as concerned all civil or political rights and duties, placed on an equality with all Christian inhabitants, and were only subject to restrictions with regard to their capability of holding public offices. On this point the Edict states, "That they may exercise all school and academic functions and professorships, for which they have duly qualified. How far the Jews may be permitted to hold public and state offices is a question which we reserve to ourselves for legal determination in course of time."

These resolutions, however, have not as yet been followed up, nor has the German Confederation come to any agreement concerning the amelioration of the state of the Jews according to the intention of the Act of Confederacy. On the contrary, opinions against the extension of privileges among the Jews having become prevalent in modern days, the progress of legislation in their favour has been checked, and even in some instances given place to restricted measures. In the Prussian States especially, the laws embodied in the Edict of the 11th March, 1812, were confined to that portion of country then belonging to Prussia, while other portions which have been recovered or acquired, maintain the original restrictions which were in force against the Jews. A Cabinet Order of the 8th August, 1830, expressly establishes the universal application of this law, because in some districts doubts had arisen on the subject. Meanwhile the necessity of regulating the condition of the Jews by a general law embracing the entire State was recognized, and its publication will be looked for with eager expectation, as the laws promulgated since 1812 indicate views essentially different from those which gave rise to the Edict of the 11th March in that year. The preliminary Ordinance of the 1st June, 1833, respecting the condition of the Jews in the Grand Duchy of Posen, gives to the numerous Jews inhabiting that country a constitution, according to which they are to form local committees for the management of their own affairs. It is insisted that each Jewish child shall, between the ages of 7 and 14, receive such school instruction as shall fit him for a particular calling, and that he shall afterwards follow such calling, the business of pedlar, factor, huckster, and pawnbroker, being excluded. Only such Jews as have by compliance with this Ordinance merited more distinguished marks of confidence, shall by patents of naturalization be recognized as citizens of the State. Here, then, we have those rights, which the Edict of 1812 bestowed at once upon the Jews domiciled in the Prussian States, conferred by a gradual process. The relations of the Jews in that district, once consisting of the Bishoprics of Paderborn and Korvei, are, with reference to the possession of landed property, and in regard to money transactions with the Christian inhabitants, subjected to special limitations by Orders of the Cabinet, dated 20th September, 1836, and 5th January, 1839, because they had there established a system of traffic most destructive to the small landowners, and similar to that which induced the French Empire to place restrictions on the money transactions of the Jews residing on the shores of the Rhine, especially those which they had with the proprietors of small vineyards.

Besides these Ordinances which have reference only to the Jews of those districts who in 1812 did not belong to Prussia, there are others which affect all the Jews throughout the kingdom, including those on whom the Edict of 1812 had conferred the right of citizenship. For instance, the resolution of that Edict, by which Jews recognized as citizens were admitted to professorships, and all scholastic and academic offices, was by a Ministerial Proclamation of the 4th December, 1822, rescinded, because of certain incongruities, which did not appear until the law came into operation. In like manner the revised Ordinance of the 17th March, 1831, so far limits the Jewish capability for holding municipal offices, that professors of the Christian religion

alone are considered eligible for the offices of chief mayor and mayor of towns. Besides, a Jew possessed of a knightly estate is not permitted to exercise the prerogatives attached to his landed possessions, and communion with a Christian Church is expressly required to render a man eligible as deputy for any commune in the States.

PROCEEDINGS OF THE STATISTICAL SOCIETY OF LONDON.

Second Ordinary Meeting, 1845-6. Monday, 22nd December, 1845.

The following gentlemen were elected Fellows:—

William Ogilby, Esq., M.A.	J. S. Goodfellow, M.D.
J. J. Sylvester, Esq.	Major Henry Berkley Henderson.
Richard Dugard Grainger, Esq.	Charles Grenville Mansell, Esq.
Henry Wyldbore Rumsey, Esq.	

The following paper was read:—

Statistics of Crime in England and Wales, from 1839 to 1843. By Rev. Whitworth Russell.

Third Ordinary Meeting, 1845-6. Monday, 19th January, 1846.

Richard Clewin Griffith, Esq., and F. G. P. Neison, Esq., were appointed the Auditors of the Society's Accounts for 1845, in conjunction with Dr. Bowring, M.P., appointed by the Council.

The following gentlemen were proposed for admission into the Society:—

Rev. Dunbar S. Halkett.		Rev. F. C. Cooke.
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The following paper was read:—

On the Duration of Life among the English Gentry, with additional observations on the Duration of Life among the Aristocracy. By W. A. Guy, M.D., Hon. Sec.

MISCELLANEOUS.

STATE OF THE PUBLIC HEALTH IN THE PAST QUARTER.

"THE Quarterly Returns are obtained from 115 Districts, sub-divided into 576 Sub-Districts. *Thirty-four* Districts are placed under the Metropolis, and the remaining 81 Districts comprise, with some agricultural Districts, the principal towns and cities of England. The population was 6,579,693 in 1841."

The mortality in the last quarter of 1845 was much lower than is usual, for only 39,178 deaths were registered, which is less by 14,740 than the number (43,918) registered in the corresponding quarter of 1844; and 2357 less than the average of the corresponding quarter of seven previous years, notwithstanding the increase of the population at the rate of about 1.74 per cent. annually.

The fluctuations in the mortality, above and below the average, are exhibited in the following series of numbers. The lower line is deduced from the Return in the December quarter of 1838, and shows what the deaths would have been if they had increased in the same ratio as the population.

	1838	1839	1840	1841	1842	1843	1844	1845
Deaths Registered in the December quarters of 8 years...	40,030	41,598	44,044	39,165	39,544	42,449	43,918	39,178
Deaths which would have been registered if the numbers had increased from 1838 at the rate of 1.74 per cent. annually	40,030	40,788	41,560	42,347	43,149	43,966	44,799	45,647
Difference <i>above</i> the calculated number .....	..	810	2,484	..	..	..	..	..
Difference <i>below</i> the calculated number .....	..	..	..	3,182	3,605	1,517	881	6,469

The mildness of the season was one cause of the diminished mortality. This is illustrated by the annexed Table of the deaths, exclusive of those by violence, registered in the Metropolis, and the mean temperature at Greenwich of the last six weeks of 1844 and 1845. The deaths and the temperature were the same at first: on the fifth week the deaths were 1,343 in 1844, and only 933 in 1845; the temperature in the previous week (the fourth) had fallen to 28° 2 in 1844, and only to 39° 2 in 1845.

Number of Weeks.	1st.	2nd.	3rd.	4th.	5th.	6th.
1844.—Mean Temperature of the last six weeks	44°.5	37°.6	31°.7	28°.2	37°.0	33°.4
1844.—Deaths Registered in the last six weeks	884	1037	965	1170	1343	1200
1845.—Deaths Registered in the last six weeks	886	943	935	949	933	898
1845.—Mean Temperature of the last six weeks	45°.5	46°.1	42°.4	39°.2	43°.6	40°.1

A fall of the mean temperature of the air, from 45° to 4° or 5° below the freezing point (32°) of water, destroys from 300 to 500 lives in the Metropolis. It produces the same results on a larger scale all over the country. Nor is it to be wondered at that a great change of the heat of the air which we breathe and live in, should have such an effect.

The deaths returned by the Registrars for each year are as follows:—

Years.	Deaths Registered in 115 Districts.	Years.	Deaths Registered in 115 Districts.
1838	102,867	1842	161,948
1839	162,605	1843	163,201
1840	171,694	1844	167,708
1841	160,733	1845	165,789

In the first three years there were 497,166 deaths; in the last three years 496,698. The population increased in the districts, from which returns have been procured, about 1.74 (nearly 1½) per cent. annually, in the intervals of the last censuses,—and the excess of births over deaths has continued,—so that it may be safely assumed, that the numbers living have gone on increasing at the same rate—about 9 per cent, in the five years, from the middle of 1839-40 to the middle of 1843-5. Now, the deaths, instead of increasing with the population 9 per cent., and consequently amounting to 541,960 in the three last years were 496,698—less by 45,262 than if the rate of mortality, which prevailed in the three years 1838-40, had been sustained. The improvement may perhaps be partly accounted for by other circumstances; but as far as can be seen at present, it is fairly ascribable to the partial removal of nuisances from large towns, to some increase of employment, and, we may hope, a consequent amelioration in the condition of the great body of the people in the dense town districts of the kingdom. But an epidemic, generated in this or any neighbouring population, may speedily reverse the results of the tables, and carry off the thousands of lives that appear to have been spared and saved.

* The Deaths of Wandsworth, now in the Metropolis, have been added to those of all the previous years.

METEOROLOGY OF 1844 AND 1845.

Quarters ending	Years	THERMOMETERS.													In the water of the Thames at Greenwich by the Self Registering Thermometer read at 9 o'clock.			Difference between the mean temperature of the quarter, and the mean temperature of the same quarter, on an average of 25 years			WIND.			Mean amount of Horizontal movement of the air in each week	Mean amount of Cloud, 0.10	Rain in inches (91 days)
		Lowest during any week		Highest on each day, 78 observations		Lowest on each day, 78 observations		Difference	Mean of 936 observations		Dew Point	Self-Registering		Mean of 91 observations	During the quarter	Mean of 91 observations	During the quarter	Mean of 91 observations	Of the highest on each day from 91 observations	Of the lowest on each day from 91 observations	Mean of 936 differences	Mean of the greatest on each day 78 observations	Mean of the least on each day 78 observations			
		Lowest during any week	Highest on each day, 78 observations	Lowest on each day, 78 observations	Difference	Mean of 936 observations	Mean of 936 results		During the quarter	Mean of 91 observations		During the quarter	Mean of 91 observations														Highest in the sun	Lowest on the grass
March	{ 1844	57.6	43.7	33.4	10.4	38.6	34.9	83.6	52.3	6.3	27.1	..	..	3.8	7.9	0.8	—0.3	..	17.0	0.63	123.8	7.2	1.3	
	{ 1845	59.0	40.0	30.9	9.1	35.4	31.7	68.8	49.6	6.0	23.8	37.2	36.4	3.7	7.7	0.9	—3.5	..	13.0	0.6	104.6	7.5	4.80			
June	{ 1844	83.3	65.4	45.5	19.9	55.0	47.2	111.7	88.6	21.6	37.0	..	..	7.8	15.4	1.6	+1.9	..	10.0	0.36	94.8	5.5	2.31	
	{ 1845	83.2	60.5	41.2	16.3	51.9	46.5	115.6	80.0	12.2	36.3	54.9	54.1	5.4	12.0	0.9	—1.1	..	12.0	0.5	95.6	6.4	4.80			
Sept.	{ 1844	85.1	66.9	51.4	15.5	58.9	53.6	115.0	90.0	30.0	43.5	..	..	5.3	11.8	0.8	—2.0	..	9.0	0.29	87.0	6.3	5.38	
	{ 1845	80.5	65.3	50.1	14.9	57.1	52.3	111.6	87.1	22.5	44.2	61.0	60.6	4.8	10.7	0.9	—3.8	..	9.0	0.4	91.7	6.9	7.00			
Dec.	{ 1844	65.9	44.3	38.7	6.3	42.4	39.4	87.2	52.6	7.9	32.4	45.1	44.5	3.0	6.1	0.8	—2.6	..	8.0	0.35	86.1	7.7	9.22			
	{ 1845	67.1	51.6	40.4	11.2	46.1	42.5	84.8	59.9	15.0	33.4	47.4	46.4	3.6	7.4	0.9	+0.9	..	15.0	0.5	110.7	6.2	5.42			

* In reading the twentieth column it will be borne in mind that + is read "higher," and - "lower," than the average.

MORTALITY OF THE COUNTRY.

Quarterly Table of the Mortality in 115 of the Districts of England (including the Principal Towns), showing the Number of Deaths Registered in the Quarters ending December 31st of the Four Years 1842-43-44-45.

DISTRICTS.	Popula- tion 1841.	Deaths Registered in the Quarters ending Dec. 31st.				DISTRICTS.	Popula- tion 1841.	Deaths Registered in the Quarters ending Dec. 31st.			
		Years.						Years.			
		1842.	1843.	1844.	1845.			1842.	1843.	1844.	1845.
<i>Metropolis.</i>											
West Districts...	301,326	1,636	1,944	1,987	1,694	<i>North Midland Division.</i>					
North Districts...	366,303	2,184	2,408	2,353	1,908	Leicester	50,932	407	343	387	354
Central Districts...	374,759	2,289	2,738	2,491	2,260	Lincoln	36,110	156	210	160	158
East Districts ..	398,247	2,632	3,199	2,999	2,638	Nottingham....	53,080	382	357	382	305
South Districts..	479,469	3,095	3,647	3,826	3,195	Rasford	59,634	341	280	845	252
Total	1,915,104	11,836	13,936	13,656	11,695	Derby	35,015	224	260	210	188
<i>South Eastern Division.</i>											
Maidstone	32,310	211	208	204	175	Total	234,771	1,510	1,450	1,484	1,257
Brighton	46,742	395	282	302	251	<i>North Western Division.</i>					
Isle of Wight ..	42,547	137	197	235	167	Stockport	85,672	532	534	474	437
Portsea Island ..	53,036	286	338	341	347	Macclesfield ..	56,018	308	307	344	293
Winchester	23,044	95	132	152	96	Great Brough- ton (including Chester)	49,085	255	257	263	235
Windsor	20,592	112	73	93	86	Liverpool	223,054	1,723	1,855	2,130	1,981
Total	218,181	1,236	1,230	1,327	1,122	West Derby (adjoining Liverpool) ..	88,652	652	625	814	674
<i>South Midland Division.</i>											
St. Albans	17,051	62	74	94	75	Blackburn	75,091	359	462	577	435
Wycombe	34,150	151	192	198	136	Preston	77,189	478	459	429	552
Oxford	19,701	95	85	103	90	Rochdale	60,577	338	360	329	414
Northampton ..	28,103	124	174	181	140	Bury	77,496	409	439	445	489
Bedford	31,767	154	220	203	131	Bolton	97,519	732	624	621	822
Cambridge	24,453	104	211	143	112	Wigan	56,032	336	523	371	402
Total	155,225	690	956	922	684	Prescott	43,739	242	223	237	290
<i>Eastern Division.</i>											
Colchester	17,790	112	114	122	85	Chorlton	93,736	583	658	710	691
Ipswich	25,254	117	147	135	145	Manchester ..	192,408	1,609	1,438	1,652	1,413
Norwich	61,846	417	279	466	305	Salford	70,228	532	517	525	451
Yarmouth	24,031	123	154	164	100	Ashton	173,964	1,065	1,060	1,129	1,018
Total	128,921	769	694	887	635	Total	1,530,460	10,153	10,341	11,050	10,547
<i>South Western Division.</i>											
Devizes	22,130	126	132	109	102	<i>York Division.</i>					
Dorchester	23,380	108	146	95	95	Sheffield	85,076	456	546	599	527
Exeter	31,333	166	295	194	203	Huddersfield ..	107,140	444	478	537	574
St. Thomas	47,105	179	223	217	183	Halifax	109,175	621	562	596	695
Plymouth	36,527	284	227	279	180	Bradford	132,164	782	809	833	1,039
Redruth	48,062	356	219	311	183	Leeds & Hunslet	168,667	981	1,070	1,103	891
Penzance	50,100	279	234	366	213	Hull	41,130	257	317	314	261
Bath	69,232	348	478	420	342	York	47,779	251	257	336	231
Total	327,869	1,846	1,954	1,991	1,501	Total	691,131	3,792	4,039	4,318	4,218
<i>Western Division.</i>											
Bristol	64,298	420	518	523	363	<i>Northern Division</i>					
Clifton	66,233	330	395	385	378	Sunderland	56,226	294	307	269	378
Stroud	38,920	185	191	193	171	Gateshead	38,747	197	261	214	215
Cheltenham	40,221	244	197	222	194	Tynemouth	55,625	321	276	267	320
Hereford	34,427	255	194	187	165	Newcastle-on- Tyne)	71,850	392	423	374	434
Shrewsbury	21,529	117	135	166	99	Carlisle	36,084	193	230	204	183
Worcester	27,130	195	170	150	149	Corkermouth ..	35,676	149	159	164	173
Kidderminster ..	29,408	159	145	189	158	Kendal	34,694	161	149	160	213
Dudley	86,028	519	414	697	475	Total	328,902	1,707	1,805	1,652	1,916
Walsall	34,274	202	150	179	225	<i>Welsh Division.</i>					
Wolverhampton ..	80,722	411	474	489	464	Abergavenny ..	50,834	221	277	264	241
Wolstanton	32,669	255	179	209	171	Pontypool	25,037	151	89	124	168
Birmingham	138,187	872	998	964	777	Merthyr Tydvil	52,864	261	372	459	334
Aston	50,928	240	307	326	230	Newtown	25,958	103	99	97	123
Coventry	31,028	207	191	244	193	Wrexham	39,542	211	209	181	177
Total	776,002	4,701	4,658	5,123	4,212	Holywell	40,787	194	196	228	185
						Anglesey	38,105	163	144	155	163
						Total	273,127	1,304	1,386	1,508	1,391
						Ditto, exclu- sive of the Metropolis)	6,579,693	39,544	42,449	43,918	39,178
						Grand Total ..	4,664,589	27,708	28,513	30,262	27,483

MORTALITY OF THE METROPOLIS.

A Table of the Mortality in the Metropolis, showing the Number of Deaths from all Causes, in the Quarters ending December 31st of the Four Years, 1842-43-44-45.

CAUSES OF DEATH.	Quarters ending December.				CAUSES OF DEATH.	Quarters ending December.			
	1842.	1843.	1844.	1845.		1842.	1843.	1844.	1845.
ALL CAUSES.....	11,836	13,336	13,656	11,695	III. Cephalitis.....	148	152	160	142
SPECIFIED CAUSES.....	11,780	13,826	13,619	11,631	Hydrocephalus.....	372	471	372	386
I. Zymotic (or Epi- demic, Endemic, and Contagious) Diseases.....	2,074	2,946	2,991	2,724	Apoplexy.....	224	249	311	272
SPORADIC DISEASES.					Paralysis.....	198	285	235	213
II. Dropsy, Cancer, and other Diseases of uncertain or va- riable Seat.....	1,418	1,418	1,338	1,069	Convulsions.....	703	758	699	450
III. Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	1,844	2,080	2,001	1,727	Tetanus.....	1	7	4	6
IV. Diseases of the Lungs and of the other Organs of Respiration.....	3,810	4,440	4,265	3,567	Chorea.....	1	1	6	..
V. Diseases of the Heart and Blood Vessels.....	290	331	474	417	Epilepsy.....	49	36	54	68
VI. Diseases of the Stomach, Liver, and other Organs of Digestion.....	766	1,002	854	875	Insanity.....	14	22	14	30
VII. Diseases of the Kid- neys, &c.....	95	89	101	140	Delirium Tremens.....	16	21	25	83
VIII. Childbirth, Diseases of the Uterus, &c.....	144	143	173	141	Disease of Brain, } &c.....	118	128	121	127
IX. Rheumatism, Dis- eases of the Bones, Joints, &c.....	81	70	94	89	IV. Laryngitis.....	6	14	17	27
X. Diseases of the Skin, Cellular Tissue, &c.....	15	26	16	35	Quincy.....	23	26	35	10
XI. Old Age.....	918	980	898	519	Bronchitis.....	213	286	394	591
XII. Violence, Privation, and Intemperance.....	325	301	414	328	Pleurisy.....	20	22	30	43
I. Small Pox.....	108	114	571	106	Pneumonia.....	1,314	1,729	1,405	1,131
Measles.....	346	456	385	927	Hydrothorax.....	49	80	86	48
Scarlatina.....	522	718	872	269	Asthma.....	278	320	366	190
Whooping Cough.....	309	468	277	557	Phthisis or Con- } sumption.....	1,700	1,771	1,676	1,382
Croup.....	112	127	102	82	Disease of Lungs, &c.....	207	192	256	145
Thrush.....	59	87	52	46	Pericarditis.....	9	14	35	22
Diarrhoea.....	87	268	129	199	Aneurism.....	7	9	10	19
Dysentery.....	49	103	34	25	Disease of Heart, &c.....	274	308	429	376
Cholera.....	13	14	5	11	Teething.....	173	270	171	113
Influenza.....	15	40	32	20	Gastritis.....	205	235	15	10
Ague.....	8	6	14	3	Enteritis.....	65	20	29	45
Remittent Fever.....	4	8	10	12	Peritonitis.....	25	20	29	45
Typhus.....	359	460	385	358	Tabes Mesenterica.....	64	136	101	162
Erysipelas.....	78	67	106	77	Worms.....	4	11	11	10
Syphilis.....	4	9	17	31	Ascites.....	8	21	24	29
Hydrophobia.....	1	1	..	1	Ulceration (of In- } testines, &c.).....	18	32	20	35
II. Inflammation.....	73	40	8	..	Hernia.....	27	21	27	22
Hæmorrhage.....	42	49	40	20	Colic or Ileus.....	37	33	29	16
Dropsy.....	411	386	337	134	Intussusception.....	3	6	8	6
Abscess.....	28	30	30	20	Stricture.....	6	5	6	12
Noma.....	..	..	2	..	Hæmatemesis.....	5	6	9	15
Mortification.....	49	65	61	27	Disease of Sto- } mach, &c.....	63	80	52	71
Purpura.....	4	4	6	8	Disease of Pancreas.....	..	..	1	1
Scrofula.....	32	37	37	65	Hepatitis.....	14	17	23	54
Cancer.....	117	144	157	206	Jaundice.....	29	24	34	29
Tumour.....	17	8	4	1	Disease of Liver, &c.....	84	83	108	127
Gout.....	22	13	10	18	Disease of Spleen.....	1	2	2	4
Atrophy.....	95	172	164	186	VII. Nephritis.....	13	10	5	11
Debility.....	244	270	281	246	Ischuria.....	1	3	1	..
Malformations.....	17	30	17	54	Diabetes.....	3	5	10	12
* Sudden Deaths.....	237	170	186	82	Cystitis.....	8	3	4	6
					Stone.....	4	1	9	11
					Stricture.....	16	11	12	20
					Disease of Kidneys, } &c.....	60	56	60	80
					VIII. Childbirth.....	107	95	121	95
					Paræmia.....	3	4	..	7
					Ovarian Dropsy.....	3	5	9	8
					Disease of Uterus, } &c.....	31	39	43	31
					IX. Arthritis.....	..	2	..	3
					Rheumatism.....	47	27	43	46
					Disease of Joints, } &c.....	34	41	51	40
					X. Carbuncle.....	..	4	1	3
					Phlegmon.....	..	1	2	1
					Ulcer.....	3	8	8	15
					Fistula.....	4	7	1	3
					Disease of Skin, &c.....	8	6	4	13
					XI. Old Age.....	918	980	898	519
					XII. Intemperance.....	8	8	10	23
					Privation.....	6	5	10	6
					Violent Deaths.....	311	288	394	299
					Causes not specified.....	56	110	37	64

* Inquests in which the cause of death was not assigned.

PRICES OF

Average Contract Prices of the Provisions and Fuel supplied to the

Districts marked out by the Registrar-General, and Central Unions contained therein.	Average Weekly Cost per Head of In-door Paupers.				Wheaten Flour per Stone.		Wheaten Bread per 4 lbs.	Meat—Beef and Mutton per lb.	Salt Butter per lb.	Cheese per lb.	Potatoes.
	Food.	Clothing.	Food and Clothing.		s. d.	s. d.	d.	d.	d.	d.	s. d.
<i>Metropolis.</i>											
East London	2 7 ³ / ₄	6 ¹ / ₂	3 2	1 9	5	5	8	....	3 0 cwt.		
Holborn	2 1 ³ / ₄	3	2 4 ³ / ₄	1 10 ¹ / ₂	5 ¹ / ₄	5 ¹ / ₂	7 ¹ / ₂	4 ¹ / ₂	2 5 cwt.		
<i>South Eastern Counties.</i>											
Maidstone	2 5 ³ / ₄	5 ¹ / ₂	2 11	1 9	5	4 ¹ / ₄	8	5	....	
Portsea Island	2 5 ³ / ₄	7 ¹ / ₂	3 1 ¹ / ₂	1 8	5	4	11 ¹ / ₂	5	58s. ton		
<i>South Midland Counties.</i>											
Northampton	2 11	5 ¹ / ₄	3 4 ¹ / ₂	1 8	4 ³ / ₄	4 ¹ / ₂	10	1 ¹ / ₂	....	
Cambridge	2 2 ¹ / ₄	3 ¹ / ₂	2 5 ³ / ₄	1 10	4 ¹ / ₂	5	11	5	1 4 ¹ / ₂ bshl.		
<i>Eastern Counties.</i>											
Ipswich	2 4	5 ¹ / ₄	2 9 ¹ / ₄	1 9	4 ¹ / ₂	5 ³ / ₄	5	5 ¹ / ₂	....	
<i>South Western Counties.</i>											
Devizes	2 2 ¹ / ₄	5 ¹ / ₄	2 7 ¹ / ₂	1 9	4 ¹ / ₂	4	....	4	2 2 bshl.		
Penzance	1 9 ³ / ₄	3 ³ / ₄	2 1 ¹ / ₂	1 10	5 ¹ / ₂	4 ³ / ₄	8	10	3 1 ¹ / ₂ cwt.		
Bath	1 9	3 ¹ / ₂	2 0 ¹ / ₂	1 7 ¹ / ₂	4 ¹ / ₂	3 ³ / ₄	10	4 ¹ / ₂	....	
<i>Western Counties.</i>											
Stroud	2 1 ³ / ₄	1 ³ / ₄	2 3 ¹ / ₂	1 10	4 ¹ / ₂	5	9	4 ¹ / ₂	5 9 bag		
Wolverhampton	2 9 ¹ / ₄	5 ¹ / ₄	3 2 ¹ / ₂	1 7	5 ¹ / ₄	5	11	6	5 0 bag		
<i>North Midland Counties.</i>											
Derby	1 10 ³ / ₄	5 ¹ / ₄	2 4	1 8	4 ³ / ₄	5	1s.	6	2 6 cwt.		
<i>North Western Counties.</i>											
Macclesfield .....	....	....	....	1 9	....	5	10	6 ¹ / ₂	6 2 load		
Bolton	2 0	....	2 0	1 7 ¹ / ₂	5 ¹ / ₄	5	9	6	5 6 load		
Prescot	1 5 ¹ / ₂	5 ¹ / ₄	1 10 ³ / ₄	....	4 ³ / ₄	3 ³ / ₄	1s.	....	....
<i>North Eastern Counties.</i>											
Sheffield	2 4	2	2 6	1 8	....	4 ¹ / ₂	....	8 ¹ / ₄	4 10 ¹ / ₂ ld.		
Halifax	2 2 ¹ / ₄	3 ¹ / ₂	2 5 ³ / ₄	1 7 ¹ / ₂	....	5 ³ / ₄	11	7 ¹ / ₄	7 0 load		
Sculcoates	2 7 ¹ / ₂	11 ¹ / ₄	3 6 ¹ / ₄	1 9 ³ / ₂	5	4 ¹ / ₂	1s.	....	1 5 ³ / ₄ pck.		
<i>Northern Counties.</i>											
Gateshead	1 11	5	2 4	1 9	4 ³ / ₄	5 ¹ / ₂	11	6 ¹ / ₂	2 10 cwt.		
Kendal	2 4	1 ³ / ₄	2 5 ³ / ₄	1 10 ¹ / ₂	....	4 ¹ / ₄	9 ³ / ₄	5 ¹ / ₂	7 2 load		
<i>Wales.</i>											
Pembroke	1 7 ¹ / ₄	3 ³ / ₄	1 11	1 9	4	4 ³ / ₄	10	4	2 10 cwt.		
St. Asaph	1 9	3 ¹ / ₂	2 0 ¹ / ₂	1 9	4 ³ / ₄	4 ¹ / ₂	11	....	6 0 hob		

PROVISIONS, FUEL, &c.

Workhouses of the following Unions, during the Quarter ending Michaelmas, 1845.

Peas per quart.	Oatmeal per lb.	Candles per 12 lbs.	Yellow Soap.	Coals per Ton.	Tea per lb.	Sugar per lb.	Milk per quart.	Miscellaneous Articles.
<i>d.</i>	<i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>d.</i>	<i>d.</i>	
$2\frac{1}{3}$	$1\frac{1}{4}$	5 0	40 0 cwt.	18 6	3 $2\frac{1}{2}$	$4\frac{3}{4}$	$2\frac{1}{4}$	Table Beer, 5s. Barrel.
$2\frac{1}{4}$	1	4 11	40 0 cwt.	16 11	2 10	$4\frac{1}{4}$	...	Porter, 33s. Barrel.
...	3	4 10	43 0 cwt.	23 6	3 4	5	$1\frac{1}{2}$	
3	$1\frac{1}{2}$	4 11	41 0 cwt.	20 0	3 6	$5\frac{1}{2}$...	
...	...	5 0	46 6 cwt.	16 9	3 6	5	$1\frac{3}{4}$	Rice, 17s. 6d. cwt.
$3\frac{1}{2}$	$1\frac{1}{2}$	5 4	43 0 cwt.	25 0	3 6	5	...	Suet, 3s. 9d. stone. Rice, $2\frac{1}{2}$ lb.
$2\frac{1}{4}$	$1\frac{3}{4}$	4 10	42 0 cwt.	20 9	...	...	...
$2\frac{1}{2}$	2	5 3	0 $5\frac{1}{2}$ lb.	18 0	4 0	6	...	Bacon, $5\frac{1}{4}$ lb. ? Beer, 7d. gall.
2	$1\frac{1}{2}$	5 0	45 0 cwt.	16 3	3 7	6	...	Fish, 6s. 9d. cwt.
$2\frac{1}{4}$	2	5 3	39 0 cwt.	13 6	3 5	$5\frac{1}{4}$	...	Rice, 17s. cwt.
$2\frac{1}{4}$	...	5 2	40 0 cwt.	16 6	...	...	...	Groats, 19s. 6d. cwt. Bacon, $5\frac{1}{2}$ lb.
$2\frac{1}{4}$	$1\frac{1}{2}$	5 0	42 0 cwt.	9 0	3 6	$5\frac{1}{2}$	1	
2	$1\frac{1}{2}$	5 6	41 0 cwt.	8 3	4 0	6	...	Rice, 18s. cwt.
2	$1\frac{1}{2}$	5 0	0 $4\frac{1}{4}$ lb.	35 7	...	...	...
2	$1\frac{1}{4}$	...	0 $4\frac{1}{4}$ lb.	7 10	...	...	1	Treacle, $2\frac{3}{4}$ lb.
$2\frac{1}{4}$	$1\frac{1}{4}$	4 10	41 0 cwt.	7 6	...	...	$\frac{3}{4}$	Bacon, $5\frac{1}{2}$ lb.
2	$1\frac{3}{4}$	5 0	0 $4\frac{3}{4}$ lb.	5 5	3 2	$4\frac{3}{4}$	2	Coffee, 1s. 11d. lb. Cocoa, 7d. lb.
$2\frac{1}{4}$	$1\frac{1}{2}$	5 6	0 5 lb.	9 6	3 8	$5\frac{1}{2}$	2	
$2\frac{1}{4}$	...	5 3	6 0 stone	15 0	...	...	...
2	$1\frac{1}{2}$	5 6	39 6 cwt.	11 10	3 8	$4\frac{3}{4}$	$\frac{1}{4}$	Coffee, 1s. 3d. lb.
...	$1\frac{1}{4}$	5 6	5 3 stone	14 2	4 0	$6\frac{1}{2}$	...	Coffee, 1s. 4d. lb.
2	2	5 9	43 0 cwt.	14 5	3 6	6	...	
$2\frac{1}{2}$	$1\frac{3}{4}$	5 4	0 $4\frac{3}{4}$ lb.	...	3 3	$5\frac{1}{2}$	2	Rice, $2\frac{1}{4}$ lb.

QUARTERLY METEOROLOGICAL TABLE,
Compiled from the Weekly Tables furnished to the Registrar-General by the Astronomer Royal.

1845 Weeks ending	Phases of the Moon.	THERMOMETERS.										WIND.				Deaths at Three Ages, exclusive of violent and sudden Deaths.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		Dew Point.		Self-Registering.		Difference between the mean temperature of the week and the mean temperature of the same week on an average of 25 years.						Pressure in lbs. on the square foot.		General Direction.	The amount of Horizontal movement of the air in each week.	Mean amount of Cloud, 0-10.	Rain in inches [7 days.]	Deaths from all causes, exclusive of violent and sudden Deaths.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Mean of 72 results.	Mean of 7 observations.	During the week.	Mean of 7 observations.	Of the highest on each day from 7 observations.	Of the lowest on each day from 7 observations.	Mean of 72 differences.	Mean of the greatest on each day, 6 observations.	Mean of the least on each day, 6 observations.	Difference between the mean temperature of the week and the mean temperature of the same week on an average of 25 years.	Greatest pressure in the week.	Mean for the week.						The amount of Horizontal movement of the air in each week.	Mean amount of Cloud, 0-10.	Rain in inches [7 days.]	Deaths at Three Ages, exclusive of violent and sudden Deaths.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
																							Highest in the Sun.	Lowest on the Grass.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Oct.	4 New, Oct. 1st	29.616	67.1	32.5	61.3	34.8	42.9	55.0	52.0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

* In reading the 20th column, it will be borne in mind that + is read "higher," and - is read "lower," than the average.

+ Six days.

REVENUE.

An Abstract of the Net Produce of the Revenue of Great Britain in the Years and Quarters ending 5th January, 1845 and 1846; showing the Increase or Decrease thereof.—(Continued from page 365, of vol. viii.)

Sources of Revenue.	Years ending 5th January.			
	1845.	1846.	Increase.	Decrease.
	£	£	£	£
Customs.....	20,378,672	18,105,206	....	2,273,466
Excise	12,160,111	12,177,112	17,001	....
Stamps	6,611,390	7,152,114	540,724	....
Taxes.....	4,216,488	4,223,842	7,354	....
Property Tax	5,191,596	5,026,570	....	165,026
Post Office.....	675,000	731,000	56,000	....
Crown Lands.....	155,000	120,000	....	35,000
Miscellaneous	693,630	1,263,241	569,611	....
Total Ordinary Revenue	50,081,887	48,799,085	1,190,690	2,473,492
Imprest and other Moneys .	278,138	323,944	45,806	....
Repayments of Advances....	875,513	1,478,959	603,446	....
Total Income.....	51,235,538	50,601,988	1,839,942	2,473,492
Deduct Increase.....				1,839,942
Decrease on the Year.....				633,550

Sources of Revenue.	Quarters ending 5th January.			
	1845.	1846.	Increase.	Decrease.
	£	£	£	£
Customs	4,902,135	4,354,789	....	547,346
Excise	3,230,940	3,338,837	107,897	....
Stamps	1,601,658	1,792,402	190,744	....
Taxes.....	1,880,490	1,876,051	....	4,439
Property Tax.....	487,541	386,985	....	100,556
Post Office.....	146,000	189,000	43,000	....
Crown Lands.....	50,000	25,000	....	25,000
Miscellaneous	9,190	369,471	360,281	....
Total Ordinary Revenue	12,307,954	12,332,535	701,922	677,341
Imprest and other Moneys	146,759	64,084	....	82,675
Repayments of Advances	250,980	404,179	153,199	....
Total Income.....	12,705,693	12,800,798	855,121	760,016
Deduct Decrease				760,016
Increase on the Quarter			95,105	

Consolidated Fund Operations.—The total income brought to this account in the quarter ending 5th January, 1846, was 8,740,084; leaving a surplus of 4,275,316*l.* The amount of Exchequer Bills issued to meet the charge on the Consolidated Fund for the quarter ending 10th October, 1845, and paid off out of the growing produce of that fund for the quarter ending 5th January, 1846, after deducting 600,000*l.* paid off out of the Sinking Fund, was 229,884*l.* The probable amount of Exchequer Bills required to meet the charge on the Consolidated Fund in the quarter ending 5th January, 1846, is stated at 230,202*l.*

CORN.

Average Prices of Corn per Imperial Quarter in England and Wales, with the Rate of Duty on Foreign and Colonial Wheat, during each Week of the Last Quarter of 1845; together with the Average Prices for the whole Quarter.—(Continued from p. 366, of vol. VIII.)

Returns received at the Corn Office, 1845.	Wheat.		Barley.	Oats.	Rye.	Beans.	Peas.	Date of Certificates of preceding Prices, regulating Duties for the Week ensuing.	Duties on Wheat per Quarter.	
	Weekly Average	Aggregate Average of Six Weeks regulating Duty.	Weekly Average	Weekly Average	Weekly Average	Weekly Average	Weekly Average		From Foreign Countries.	From British Possessions out of Europe.
Weeks ending 1845.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.		s. d.	s. d.
Oct. 4 .	56 0	54 8	31 1	23 4	33 8	43 1	42 6	Oct. 9	18 0	5 0
11 .	57 9	51 11	31 3	23 4	34 2	43 1	44 4	16	18 0	5 0
18 .	58 2	55 3	32 0	23 5	34 5	44 5	43 0	23	17 0	4 0
25 .	59 5	56 2	33 0	24 11	34 5	45 5	44 1	30	16 0	3 0
Nov. 1 .	60 1	57 5	34 3	26 2	33 2	45 3	43 10	Nov. 6	15 0	2 0
8 .	59 7	58 6	35 1	25 2	35 7	45 1	44 9	13	14 0	1 0
15 .	58 6	58 11	35 0	26 3	38 2	44 5	45 7	20	14 0	1 0
22 .	57 11	58 11	34 1	25 5	37 1	43 4	45 4	27	14 0	1 0
29 .	58 2	58 11	33 2	25 0	35 4	41 9	45 10	Dec. 4	14 0	1 0
Dec. 6 .	59 0	58 10	32 10	24 7	35 0	41 8	43 4	11	14 0	1 0
13 .	59 4	58 9	32 9	24 6	36 8	40 8	43 6	18	14 0	1 0
20 .	57 11	58 6	32 7	23 4	34 5	39 6	42 5	25	14 0	1 0
27 .	55 4	57 11	32 5	23 0	32 8	38 6	39 10	Jan. 1/16	15 0	2 0
Average of the Quarter }	58 3	57 6	33 0	24 5	34 11	42 9	43 8	..	15 0	2 0

Foreign and Colonial Wheat and Wheat-Flour imported in each of the Months ending 10th October, 5th November, and 5th December, 1845; the Quantities upon which Duties have been paid for Home Consumption during the same Months; and the Quantities remaining in Bond at the close of them.—(Continued from p. 366, of vol. VIII.)

WHEAT.

Months ending.	Imported.			Paid Duty.			In Bond at the Month's end.		
	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.
1845	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.
10th Oct.	111,164	6,184	117,348	11,691	6,216	20,907	524,803	..	524,803
5th Nov.	149,484	898	150,382	810	821	1,631	667,698	75	667,773
5th Dec.	142,843	10,400	153,243	7,220	10,424	17,644	794,202	51	794,253

WHEAT-FLOUR.

Months ending.	Imported.			Paid Duty.			In Bond at the Month's end.		
	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.
1845	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.
10th Oct.	8,079	124,153	132,232	1,176	110,857	112,033	224,159	15,889	240,048
5th Nov.	39,061	85,422	124,483	85	82,859	82,944	261,720	18,451	280,171
5th Dec.	114,676	131,531	246,207	820	115,872	116,692	372,064	32,012	404,106

CURRENCY.

BANK OF ENGLAND.

An Account, pursuant to the Act of the 7th and 8th Victoria, c. 32, for the Weeks ending on Saturday, the 3th November, and 6th December, 1845, and 3rd January, 1846.—(Continued from p. 367, vol. VIII.)

ISSUE DEPARTMENT.

	Weeks ending,		
	8th Nov., 1845.	6th Dec., 1845.	3rd Jan. 1846.
	£	£	£
Notes issued	27,202,365	26,540,480	26,675,925
Government Debt	11,015,100	11,015,100	11,015,100
Other Securities	2,981,900	2,981,900	2,981,900
Gold Coin and Bullion	11,670,074	10,992,631	11,093,869
Silver Bullion.....	1,532,291	1,547,849	1,582,056
Total	27,202,365	26,540,480	26,675,925

BANKING DEPARTMENT.

Proprietors' Capital	14,553,000	14,553,000	14,553,000
Rest	3,231,595	3,209,394	3,251,660
Public Deposits	5,310,731	8,110,101	9,369,630
Other Deposits	9,134,243	9,022,019	8,350,465
Seven Day and other Bills	1,133,320	1,004,171	959,967
Total	33,295,889	35,899,285	36,487,722
Government Securities, including Dead Weight Annuities	13,203,138	13,201,863	13,201,072
Other Securities	14,234,438	16,224,712	16,262,593
Notes	5,137,730	5,945,810	6,118,510
Gold and Silver Coin.....	520,583	526,870	605,517
Total	33,395,889	35,899,285	36,487,722

COUNTRY BANKS.

Average Aggregate Amount of Promissory Notes of Country Banks, which have been in Circulation in the United Kingdom, distinguishing the several Banks, or Classes of Banks, by which issued in each part of the Kingdom, during the three weeks ending 3th November, and 6th December, 1845, and 3rd January, 1846.—(Continued from p. 367, vol. VIII.)

Banks.	8th November, 1845.	6th December, 1845.	3rd January, 1846.
England—Private Banks	4,743,179	4,569,436	4,181,216
Joint Stock Banks	3,334,587	3,221,153	3,162,310
Scotland—Chartered, Private, and Joint Stock Banks.....	3,593,988	3,804,031	3,336,109
Ireland—Bank of Ireland.....	4,374,850	4,404,975	7,404,366
Private and Joint Stock Banks	3,449,690	3,311,855	
Total.....	19,496,291	19,311,750	18,381,361

BANKRUPTCY.

An Analysis of the Bankruptcies in England and Wales, gazetted in each Month of the Quarter ending December 31, 1845; showing the Counties and Branches of Industry in which they have occurred.—(Continued from p. 368, of vol. VIII.)

COUNTIES.	October.	November.	December.	TRADES.	October.	November.	December.
Metropolis.....	30	56	31	<i>Agriculture and connected Trades.</i>			
Bedford			1	Farmers	2	2	...
Berks				Agricultural Implement Makers, &c. ....	...	...	...
Bucks.....				Corn Factors	1	2	...
Cambridge	1	1	1	Millers and Malsters .....	...	3	1
Cheshire	1	2	...	Hop Merchants .....	...	...	1
Cornwall				Brewers	2	3	2
Cumberland	1			Horse and Cattle Dealers, and Woolstaplers	2	...	...
Derby				<i>Mining and connected Trades.</i>			
Devon		2		Mining Firms	1	...	...
Dorset	1		1	Blasting Works .....	...	...	...
Durham.....		3	...	<i>Manufactures.</i>			
Essex.....	1			Woollen Manufacturers	2	3	3
Gloucester.....	3	2	1	Cotton „	1	1	1
Hants.....	1	1	3	Linen „ .....	...	...	...
Hereford				Silk „ .....	...	...	...
Hertford			1	Printers and Dyers .....	...	1	1
Huntingdon	1			Lace Manufacturers .....	...	...	...
Kent		5	1	Hosiery „	2	1	...
Lancashire.....	14	10	15	Hardware „	1	2	1
Leicester			1	Earthenware „ .....	...	...	...
Lincoln		1	...	Glass „ .....	...	...	...
Middlesex (exclusive of the Metropolis. }	...	...	...	Paper „ .....	...	...	1
Monmouth.....				Builders	3	6	5
Norfolk	2	2	3	Miscellaneous Manufacturers....	10	14	10
Northampton.....				<i>Commerce.</i>			
Northumberland	1		1	Bankers and Merchants	5	2	2
Nottingham		1	1	Shipowners, Warehousemen, Brokers, and Wholesale Dealers generally }	8	8	12
Oxford	1		1	<i>Retail and Handicraft Trades.</i>			
Rutland		1	...	Bakers	1	2	1
Salop			1	Butchers	2	1	...
Somerset (including Bristol) }	3	4	3	Corn and Hay Dealers .....	...	...	...
Stafford	1		2	Innkeepers and Victuallers	9	7	7
Suffolk		1	...	Wine and Spirit Merchants .....	...	3	3
Surrey (exclusive of the Metropolis) }	1	2	1	Dealers in Grocery, Drugs, and Spices	6	6	9
Sussex	1	1	...	Makers of, and Dealers in, Clothing	6	6	4
Warwick		1	4	Makers of, and Dealers in, Furniture	3	3	...
Westmorland				Coach Builders .....	...	...	...
Wilts				Miscellaneous	5	28	16
Worcester	1	2	...				
York (East Riding)	1	1	1				
„ (North Riding)			1				
„ (West Riding)	4	3	5				
Wales.....	2	2					
Total	72	104	80	Total.....	72	104	80

QUARTERLY JOURNAL

OF THE

STATISTICAL SOCIETY OF LONDON.

JUNE, 1846.

Twelfth Annual Report of the Statistical Society of London.
Session 1845-6.

THE Council of the Statistical Society of London, in rendering to the Fellows an account of its year's stewardship, has at length the pleasure of presenting to them a perfectly clear balance sheet, and yet one which shows that their funded property remains undiminished. The mere excess of current income over current expenditure has enabled it, notwithstanding the charges incurred in removing from Regent-street to the present apartments of the Society, to extinguish the arrear of debt, to an amount varying between £50 and £100, with which each year has so long been commenced. It is, therefore, with double satisfaction, that the Council congratulate the Fellows on this removal, by which it effects a saving of £50 per annum in rent, although the style and extent of the accommodation afforded by the new apartments, are such as would have warranted an addition of that amount to the former rental. About £30 will be required in the current year, to defray the cost of adapting the furniture of the former apartments to the present, and that of making some additions to it, required by the ample space now enjoyed; but the removal has occasioned no other extraordinary outlay which is not included in the annexed balance sheet, and defrayed in the last year's expenditure.

The number of Fellows elected during the past year has been 13, the number who have withdrawn from the Society, or are deceased, 11; and the newly-revised list will contain the names of 412 Fellows.

A part of the Society's affairs which it appeared to the Council might be put upon a sounder footing, was the printing of its Journal: and circumstances arising which placed them at liberty to seek any new tender for that labour, one was required from Messrs. Harrison, with which they closed, because it offered a saving of £20 per annum, at the same time that the character and resources of the firm were a sufficient guarantee that the work would be turned out in the best style of their art; an expectation which has been fully realized. The stock on hand of the Journals and publications of the Society was at the same time obtained from Messrs. Clowes, and transferred to its new premises; and the whole of its affairs are thus brought into a clear and compendious arrangement. Seventy pounds per annum have been virtually added to the income of the Society by these savings, and

with all its movable property on the present insured premises, it has commenced the year 1846 with a clear thousand pounds balance in its favour.

The only Committee of the Society which has received funds for local investigations during the past year, is the Committee for collecting the Statistics of the population inhabiting a central portion of Whitechapel, a description of whose condition would, it was anticipated, afford a fair picture of that of the vast mass of the labouring population occupying the eastern part of the metropolis, on the north side of the Thames. This Committee owed its appointment to a special donation of £25 by Mr. Hallam, towards an inquiry of this nature to be made in the metropolis. Mr. Slaney made another of £10, in aid of its operations; and a further sum of £16 4s. has been granted for their completion from the general funds of the Society. At first the Committee had considerable difficulty in procuring agents possessing the peculiar qualifications required for the task, but they were at length fortunate enough to obtain persons of character eminently qualified, and they have now collected the whole of the required details, by careful survey and investigation from house to house.

The details themselves are interesting, but an abstract of the results, which will be much more so, is in course of preparation, and will be laid before the Society at one of the meetings of the present Session.

The labours of the Committee on Benefit Societies were superseded for the time by those of Mr. F. G. P. Neison in the same field; the results of which, under the name of Contributions to Vital Statistics, have already been laid before the Society, and published in brief in its Journal. Their scientific value, and their utility to the most meritorious part of the poorer classes, entitle Mr. Neison's labours to the highest praise; conducted, as they undoubtedly have been, at a great pecuniary as well as personal sacrifice. The complete re-analysis of the Criminal Statistics of England, by the Rev. Whitworth Russell, submitted to the Society at the first meetings of the present Session, was, in like manner, both for its extent and intricacy, a work rather for an associated body than one which it was to be expected that any individual would undertake, however much interested in the results. In the recent numbers of your Journal the papers of Dr. Guy upon the influence of employments on health, and on the expectation of life among the higher classes, together with the principal papers read at the fifteenth meeting of the Statistical Section of the British Association at Cambridge in June last, have successively appeared. Among the latter the paper on the Progress and Present Extent of Savings Banks in the United Kingdom, by G. R. Porter, Esq., that on the Trade of Norway, by R. Valpy, Esq., and that on the Statistics of Merthyr Tydvil, by G. S. Kenrick, Esq., are especially deserving of attention.

The paper to be brought before you this evening, by Mr. Butler Williams, on the public advantages, yet undeveloped, to be derived from the railway system, will also tend to show how immediately each new truth which can be elaborated in social science seeks to realize itself, directly or indirectly, in corresponding social improvements, and to demonstrate that the practical and the scientific are

never far removed. Indeed the Society may congratulate itself that the habit of reasoning upon extended observations, adduced by patient research, which it was the great purpose of its formation to cultivate, is happily becoming more and more one of society at large, no less than of statesmen.

The Country has long had its Statistical Department under a chief officer, the results of whose labours are constantly used to test nearly all reasoning on public interests; and now the East India Company has followed its example, and established for their peculiar empire a Statistical Department, which must become the laboratory of many a new truth deeply affecting our interests, our feelings, and our honour. Neither would we repress a hope, generated by the past instances of liberality shown by the Company towards this Society, that our meetings may become the medium through which that honourable body may occasionally communicate to the English world results whose scientific and social importance does not terminate with their official value.

The Reports of the Health of Towns Commission, which has closed its labours during the past year, afford an additional testimony to the value of statistical evidence, and to the necessity for its production imposed by the growing habits of the age. The Report of Professor Playfair on the towns of Lancashire more particularly demands your attention.

The only publication during the past year by a provincial Statistical Society is that of the Statistical Society of Manchester, "On the demoralization and injuries occasioned by the want of proper regulations of labourers engaged in the construction and making of Railways;" and it is not without regret that the Council witness how ephemeral is the existence, or transitory are the exertions, of the local Statistical Societies generally. Were they associated with the Central Society, as suggested in its last Annual Report, they on the one hand would learn that the labours of the statist are never finished, while we should constantly profit by contributions based on the vivid impressions of their local experience.

The most important work which we have received from the Continent during the past year, is the Statistical Tables of the Prussian States, by M. Dieterici, Director of the Statistical Bureau at Berlin. It is not, however, necessarily to be concluded that this is the most important work published on the Continent during the same period; for the Council regret to state that there is much to be desired in regard as well to the communication, as to the subsequent safe and expeditious transmission to the Society, of the works produced under the patronage of foreign Governments. The free communication of such papers would tend greatly to augment the value of our reasonings by extending their basis, or refining our observation to the collection of new data; and every improvement to which can we be mutually incited is, of necessity, not national merely, but European.

The annexed is the balance sheet of the Society's accounts for the past year, duly reported by the Auditors.

Abstract of RECEIPTS and EXPENDITURE from the 1st JANUARY to the 31st DECEMBER, 1845.

RECEIPTS.			
To Balance in the hands of Treasurer	£	s.	d.
" Secretaries	136	12	5
" 2 for 1840	8	19	4½
Arrears of Subscriptions paid.	£4 4 0		
5 for 1841	10	10	0
7 for 1842	14	14	0
10 for 1843	21	0	0
19 for 1844	39	18	0
Subscriptions	611	2	0
291 1845	105	0	0
Compositions	46	6	10
Sale of Journal	66	10	0
Dividends on Stock	10	0	0
Mr. Slaney in aid of the Statistics of Whitechapel	6	6	3½
Balance due to petty cash			
Assets, December 31, 1845:—	£1,071	2	11
Stock in the Reduced 3½ per Cent., £569 17s., cost £567	867	0	0
" Consols 3 per Cent., £328 15s. 4d.	£300		
Balances of Grants made to Committees:—			
House Committee	£8	15	2
Charities Committee	1	10	0
Library Committee	4	14	10
Cash Balance	15	0	0
Dividend on Stock due	67	13	1
Arrears of Subscriptions due.	270	18	0
2 for 1840	£4 4 0		
5 for 1841	10 10 0		
15 for 1842	31 10 0		
19 for 1843	39 18 0		
35 for 1844	73 10 0		
53 for 1845	111 6 6		
Deduct Amount not likely to be paid	130	18	0
Total Assets	£1,103	13	1

EXPENDITURE.			
By Rent	£	s.	d.
Insurance (2 years)	300	0	0
Salaries	1	10	0
Housekeeping Expenses, including Expenses of Removal to New Chambers	205	0	0
Printing	35	3	9
Editing and Advertising Journal	254	19	0
Stationery (2 years)	93	9	0
Parcels, including Delivery of Journal and Postages	19	3	2
Library	12	18	4
Engraving	28	10	3
Miscellaneous	3	13	6
Grant to Mr. Hallam's Committee for collecting the Statistics of Whitechapel	6	2	10
Grant to House Committee	30	0	0
Cash Balance	10	0	0
Total	67	13	1
	£1,071	2	11

Liabilities, December 31, 1845:—			
Messrs. Cloves for Printing	£63	7	6
Vacher and Sons for Copying, &c.	5	8	6
Mr. Hallam's Committee	21	4	0
Total Liabilities	£90	0	0

Examined, Audited, and Approved,
JOHN BOWRING,
R. C. GRIFFITH,
F. G. P. NELSON.

London, February 12, 1846.

Examined, Audited, and Approved,
 JOHN BOWRING,
 R. C. GREETH,
 F. G. P. NELSON.
 London, February 12, 1846.

On the Principles of Railway Management, and on the profitable Increase in the Traffic produced by great Reductions in the Charges.*
By J. BUTLER WILLIAMS, F.S.S., F.G.S.

[Read before the Statistical Society of London, 16th March, 1846.]

WHEN the first projects for railways to be worked with locomotive power were discussed and brought under public notice, it was anticipated that the chief source of profit would be found in the conveyance of goods and merchandise.

The unexpected and extraordinary increase in the number of passengers, however, produced by the combined economy of time and money, rendered the passenger traffic more immediately and evidently profitable; hence it naturally engrossed the attention of the managers whose entire energies were required to provide great accommodation, combined with speed, safety, and regularity.

So rapid has been the increase in the number of the passengers, increasing with every extension of the railway system, that a corresponding demand on the resources of Companies, and the skill and energy of their managers, has caused the conveyance of goods to receive a less share of their attention than it merits, considering its importance in a commercial point of view, and as a source of profit to the capitalist.

Of late the old-established lines have increased the facilities for the carriage of goods, and provided accommodation apparently more nearly commensurate with the demand. So far as the experiment has been carried, it has shewn generally that the net revenue from the goods traffic has been increasing in a quicker ratio than the net revenue from passengers.

On the London and Birmingham, Grand Junction, and Great Western Railways, the income from the goods traffic now ranges from 25 to 40 per cent. of that derived from passengers, the increase in the revenue from the goods traffic having been within twelve months about 30 per cent. on each of these great trunk lines.

On the York and North Midland, the Paris and Rouen, the Paris and Orleans, and similar lines, the goods traffic now produces a revenue about equal to half of that derived from passengers, the increase having been in the same period about 30 per cent.

Late arrangements made by the South Eastern Company for the more economical and regular carriage of goods have caused an increase of revenue from that source of upwards of 100 per cent.

Important as these facts are to shew the advantages of a movement in the right direction, I am convinced that they do not represent even approximately the vast increase in the goods traffic which must follow upon a liberal management and more extended accommodation.

The inland transit of colonial produce, manufactured articles, and

* The investigation of one branch only of the wide subject of Railway Management is here attempted. I have pleasure in acknowledging that for some of the illustrations I am indebted to valuable suggestions from Mr. Chadwick; for others to statistical details of the working of railways in Belgium, published by M. Delaveleye, Brussels, 1844.

generally of valuable goods of small bulk, the relative value of which is but little enhanced by the expense of carriage, may be deemed to be secured for railroads, provided they offer the requisite accommodation.

By a speedy and economical conveyance of small parcels, another field of enterprise and source of profit is opened to railways without the possibility of competition by other modes of conveyance. I shall again refer to this branch of traffic, which I believe to have been too much neglected and effectually discouraged by irregular and high charges, either on the supposition that the returns would scarcely be commensurate with the additional trouble entailed, or from an erroneous view of its capabilities of expansion.

But the most important field of all, because the most exhaustless, remains to this time nearly unoccupied by railways. I refer to the conveyance of agricultural produce and bulky materials, which are either conveyed by canals or common roads, or too frequently remain confined in districts where their value cannot be turned to the best public or private advantage.

Coals and cattle are, it is true, carried to some extent by railway—but that this extent is insignificant as compared with the population to be supplied, although demonstrated by the returns of various railways, might be assumed upon simple reference to the tariffs which, except under peculiar circumstances, are too high, not only to encourage but actually to admit of their conveyance by railway with any benefit to the producers.

Timber, marble, slate, building-stone, lime, manure, minerals—also agricultural produce, flour, &c., will follow the channel of railway transit only when the cost by this mode of conveyance shall have been brought to very low limits, corresponding in fact with, or lower than, the charges of conveyance by canal.

I propose investigating the problem of a highly economical carriage of goods, chiefly in relation to the profitable RETURN that it is calculated to offer to the capitalist, by rendering much more productive the existing channels of railway communication. But although confining myself to that view of the question, I cannot be insensible to the great improvement that such a measure would effect in the commercial prosperity of districts, rich in natural and agricultural produce, but kept comparatively poor and unproductive from want of a cheap outlet. With diminution in the cost of conveyance, the producer derives in the first instance a corresponding increase in the net profit: afterwards this increase in the profit is shared, in varying proportions, between him and the consumer. The existence or non-existence of ready and economical outlets at once establishes a broad distinction between separate localities which individual energy and enterprise cannot obliterate. As regards the price of labour, the perfection of machinery, and even the skill of the workmen, the conditions of production may in most manufactures be made to assimilate. But individual enterprise cannot obtain at will an expeditious and economical means of transit; and districts otherwise favoured may from its want remain barren and profitless.

The interests of the public and the railway companies are fortunately identical; for, the only way in which railways can return profits

from the conveyance of heavy goods and bulky materials is by carrying them in great quantities; and quantity can be secured by no other means than an exceedingly low scale of charges. This I hope to succeed in establishing.

A railway, with its complete establishment, may be likened to a great machine or engine adapted to purposes of transit. The original cost is considerable, and its object is to economise labour.

The interest on the original cost is a most serious item which must be provided for. The produce is costly, if but little work is performed—the produce is cheap, if the machine is fully and constantly employed. To allow the machine to be idle, or to work with incomplete action, is to incur an accumulating loss for interest on the unproductive capital.

The cost of all conveyance on railways admits of being separated into two distinct elements:—

1st. The interest on the capital,—together with certain fixed charges which are independent of the greater or less use made of the railway.

2ndly. The working expenses resulting directly from the work done.

The first of these elements, viz., that consisting of the fixed charges, is not composed solely of the interest on the capital expended, but embraces also the cost of repairs of stations, goods, sheds, fencing, slopes of embankments and cuttings, drainage, renewal of sleepers (in part), and generally such works as are essential to prevent the deterioration of the property, and are not influenced by the greater or less traffic of the line.

It embraces also a certain proportion of the expenses of management, salaries to secretaries, officers, police, and others, who although they may be increased in number with an increase in the traffic, are not increased in proportion to the extension of the traffic.

The second element embraces the cost of haulage, properly speaking, that is, repair and maintenance of engines, trucks, carriages, &c.; consumption of fuel, oil, grease, &c.; wages of engine-drivers, stokers, guards, porters, &c.; maintenance of the permanent way in so far as it is affected by the traffic; and proportionate increase in the number of managing officers, superintendents, and workmen, in as far as that increase is required by additional traffic.

The first element varies with every railway according to the character of the country traversed, the traffic to be provided for, the views of the directors, the skill of the engineer, &c.

The average cost of railways has been—

	Per mile.
In England	about £31,000
In Scotland	„ 22,000
In Ireland	„ 22,000

(Vide Porter's "Traffic Returns," Statistical Journal, vol. vii., p. 176.)

In Belgium	about £18,000
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(Vide "Report of the Statistical Bureau," Delaveleye, Brussels, 1841.)

In France	about £41,000
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(Vide Claudel's "Aide-Mémoire des Ingénieurs," p. 455. Average of 5 Metropolitan Lines.)

The great difference to be noticed in the above statement of the average cost of railways in different countries, is not greater than the

difference which will be found to exist between the cost of different lines in the same country. The causes of such differences can easily be traced, but they need not be considered in connexion with the subject under examination.

It is manifest, however, that the fixed charge which must enter as so influential an element in the cost of conveyance, will, in any comparison which we may institute, be greatly modified according to the *cost per mile* taken as the basis of the calculation, and greatly so likewise according to the *rate of interest* which may be attributed as due to the capital risked.

As variable opinions must necessarily prevail on both points, I propose to offer tabular statements of the effect of the fixed charge on the cost of conveyance, prepared on varied assumptions.

In the first instance, however, I shall confine my attention to the lowest of these estimates, because the opinions of engineers and of statisticians agree in establishing, that the lines to be henceforth constructed will on the average approach more nearly to the lower than the higher standard. "The Board of Trade in their Report on the South Western District, in 1845, state that the lines proposed to be made in that part of the country might be constructed for about £12,000 per mile;—and the estimated cost of the mass of new railways, projected during the last two years, ranges, with few exceptions, between £25,000 and £10,000 per mile*."

Perfectly responsible contractors are ready to undertake contracts for the works on the engineers' estimates. I believe, therefore, that illustrations, taking the Belgian average as the standard of cost, will be applicable to lines proposed to be made†.

I propose taking the rate of interest at 5 per cent. per annum, and at 10 per cent.

Upon the original cost of £18,000 per mile, a first demand, if the rate of 5 per cent. interest be selected, of £900 per mile per annum *must be provided for out of the revenue from the traffic, being in nowise modified by the extent of the latter.*

To this must be added the aggregate annual outlay for those items which have been enumerated above, as being independent of the traffic, such as the maintenance of the boundary walls and fences, the repairs of the buildings, maintenance of the slopes of cuttings and embankments, drainage, &c.

I have not been able to obtain for the English railways a return of these items sufficiently comprehensive for general deductions, but for the Belgian railways, an examination of nine years' working has enabled the Statistical Bureau to determine the average as amounting to £130 per mile per annum, to be added therefore to the interest, and producing (at 5 per cent.) a fixed charge of £1030 per mile per annum, to be defrayed by tolls on the carriage of passengers and goods.

* "Defects of the English System of Railway Legislation," by James Morrison, Esq., M.P., Longman, 1846, page 13.

† This assumption as to the cost of construction will not probably be applicable, if the numerous projects now before Parliament be carried into execution in the next three or four years. The great demand for labour and materials would, in such a case, greatly raise their prices above the existing averages, and certainly cause a departure from the estimates of even the most experienced and skilful engineers.

At 10 per cent. interest this fixed charge will be,—

Interest on £18,000	£1,800
Other fixed charges.....	130
Total.....	£1,930

This fixed charge is to be provided for as a whole by the revenue from the goods and passenger traffic. As I am at present considering only the conveyance of goods, I must strike a proportion to determine the share to be allotted to each branch. In determining this ratio, the proportion of the average returns from goods and passengers might be taken, thus making the charge to be given to the goods' branch comparatively smaller than that apportioned to the passenger branch. But inasmuch as the aim of this essay is to show, that the carriage of goods is destined to have an importance little, if at all, inferior to that now belonging to the conveyance of passengers, I propose, in the investigation, dividing this fixed charge equally between the two classes of traffic.

The tolls on goods must return, therefore, over and above the actual cost of haulage, an annual revenue per mile of £515 at 5 per cent., and £965 at 10 per cent. Distributing this over the tonnage throughout the year, if the mean amount of goods traffic be on the average per mile per annum 20,000 tons, the charge per ton per mile must be,—

At 5 per cent.....	$\frac{£515}{20,000}$	or.....	$\frac{d.}{6.18}$
At 10 per cent.	$\frac{£965}{20,000}$	or.....	$\frac{d.}{11.58}$

If the traffic be increased to 40,000 tons per mile per annum, the charge per ton per mile becomes,—

At 5 per cent.	$\frac{£515}{40,000}$	or.....	$\frac{d.}{3.09}$
At 10 per cent.	$\frac{£965}{40,000}$	or.....	$\frac{d.}{5.79}$

If the traffic be raised to 200,000 tons per mile per annum, the charge per ton per mile would then be,—

At 5 per cent.	$\frac{£515}{200,000}$	or.....	$\frac{d.}{0.618}$
At 10 per cent.	$\frac{£965}{200,000}$	or.....	$\frac{d.}{1.158}$

In short, this constant charge of £515, at 5 per cent., or £965, at 10 per cent., becomes a charge on the carriage of each article, varying in the inverse ratio of the amount of traffic.

The second element, however, the cost of haulage or working expenses, must be added to obtain the total charge per ton per mile.

In endeavouring to ascertain the general average cost of the actual haulage, and other expenses dependent on the working of the lines, I have found very great variations in different lines, due in a great measure, no doubt, to the returns embracing different items of expenditure,

as well as to the difference in the cost of fuel and other materials. The most complete Returns to which I have had access, are those published by the Statistical Bureau of Belgium, for upwards of two years previous to January, 1844.

If it be found, as I believe it will, when access is had to more complete information, that the English scale of working expenses is less per ton per mile than that of Belgium, the reasoning which follows will not be thereby vitiated,—the conclusion will only become more manifest.

The average working cost in Belgium has been on goods' trains *·45d.* per ton net per mile.

The fixed and variable charges combined will then give the total cost, according to the amount of tonnage, as follows, viz.—

If the traffic be 20,000 tons per mile per annum,

1. At 5 per cent. interest on capital, charge varying with the traffic	$\frac{£515}{20,000}$	=	<i>d.</i> 6·18		
+ Haulage charge (fixed)....		=	<i>·45</i>	<i>d.</i>	
			—	Total	6·63 per ton per mile.
2. At 10 per cent. per annum, charge varying with the traffic	$\frac{£965}{20,000}$	=	<i>d.</i> 11·58		
+ Haulage charge (fixed)		=	<i>·45</i>	<i>d.</i>	
			—	Total	12·03 do. do.

With a traffic of 200,000 tons per mile per annum,

1. At 5 per cent. interest, charge varying with the traffic	$\frac{£515}{200,000}$	=	<i>d.</i> ·618		
+ Haulage charge (fixed)		=	<i>·45</i>	<i>d.</i>	
			—	Total	1·068 per ton per mile.
2. At 10 per cent. interest, charge varying with the traffic	$\frac{£965}{200,000}$	=	<i>d.</i> 1·158		
+ Haulage charge (fixed)		=	<i>·45</i>	<i>d.</i>	
			—	Total	1·608 do. do.

The comparison is carried out more in detail in the annexed Table (p. 107).

In Belgium, at the time to which the Returns determining the working expenses had been brought, viz., the end of 1843. the quantity of goods carried on the Government lines averaged 40,000 tons per mile per annum. At that time the actual average charge throughout the Belgian railways was $2\frac{1}{2}d.$ per ton per mile. But a reference to the table shows that, with the average traffic of 40,000 tons per mile per annum, the charge required to produce 5 per cent. interest on the capital would be $3·54d.$ Hence, on every ton of merchandise, which was then conveyed on the Belgian railways, (assuming that half the interest on the capital should be borne by the passenger and half by the goods traffic,) there was a positive loss of upwards of $1d.$ per ton per mile.

This conclusion deduced from the table, is borne out by the Returns officially issued from the Statistical Bureau, which show the Belgian Government railways to have been worked at a loss since their establishment. (Delaveleye's Report, Brussels, p. 25.)

The yearly loss may be calculated thus—

Table showing the diminution in the cost of Carriage per Ton per Mile, dependent on the Increase in the Traffic. (Original cost of Construction, £18,000 per Mile.)

Allowing Interest at the rate of 5 per cent. per Annum on the Capital.				Allowing interest at the rate of 10 per cent. per Annum on the Capital.			
Average Traffic per Mile per Annum. Tons Net.	Fixed Charge per Ton per Mile for In- terest, &c.	Actual Working Expenses per Ton per Mile.	Total Charge.	Fixed Charge per Ton per Mile for In- terest, &c.	Actual Working Expenses per Ton per Mile.	Total Charge.	Average Traffic per Mile per Annum. Tons Net.
	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	
20,000	6·18	....	6·63	11·58	....	12·03	20,000
30,000	4·12	....	4·57	7·72	....	8·17	30,000
40,000	3·09	....	3·54	5·79	....	6·24	40,000
50,000	2·47	....	2·92	4·63	....	5·08	50,000
60,000	2·06	....	2·51	3·86	....	4·31	60,000
70,000	1·76	....	2·21	3·31	....	3·76	70,000
80,000	1·54	....	1·99	2·89	....	3·34	80,000
90,000	1·37	·45	1·82	2·56	·45	3·01	90,000
100,000	1·24	....	1·69	2·32	....	2·77	100,000
150,000	·82	....	1·27	1·54	....	1·99	150,000
200,000	·62	....	1·07	1·16	....	1·61	200,000
300,000	·41	....	·86	·77	....	1·22	300,000
400,000	·31	....	·76	·58	....	1·03	400,000
500,000	·25	....	·70	·46	....	·91	500,000
1,000,000	·12	....	·57	·23	....	·68	1,000,000

At per mile, 40,000 times the excess of 3·54*d.* above the actual charge of 2·5*d.* per ton per mile (40,000 being the annual tonnage per mile).

Or $40,000 \times 1·04d. = £173.$

To be multiplied by 350 miles of road then at work, $£173 \times 350 = £60,000$ yearly loss.

Such a result, viz., the loss which has been thus deduced by the theoretical investigations is not more unfavourable than that which (up to the date of the Report referred to) had attended the working of the Belgian Government railways, viz.:

“That after defraying the expenses, a surplus was left only sufficient to pay interest on the capital at the rate of $2\frac{1}{2}$ per cent.” And as the money for the construction of the Belgian railways has been borrowed by the State at 5 per cent. interest*, the country must provide by an annual tax for the deficiency of $2\frac{1}{2}$ per cent. shewn in the working.”

It is true that this $2\frac{1}{2}$ per cent. cannot altogether be considered as a money loss, inasmuch as the railways afford free transit for Government despatches, for the Post Office, for military stores and ammunitions, soldiers on duty, and other demands for the public service. But all these form in the aggregate but a small part of the per centage to be provided for to meet the deficit arising from the working of the lines.

There is no doubt that Belgium has indirectly been benefited by the introduction of railways to an extent which can scarcely be over estimated, but I believe that a difference made in the principle of

* The interest is exactly 4·86 per cent. per annum, being the mean on various loans raised at different rates.

working the lines and the system of their management would have the effect of giving profits where loss is now incurred.

The inspection of the table (p. 107), in which is shown so rapid a diminution in the remunerating charge consequent on the increase of traffic, points to the guiding principle in the management of a railway.

I have stated that the average tonnage of merchandise had been only 40,000 tons per mile per annum on the Belgian railways. Now at that very time (Delaveleye, Brussels, 1844,) the average tonnage per mile per annum was, on the canals of Belgium, 400,000 tons, or ten times the quantity carried by railway. It is impossible that so marked a disproportion as this can be due to any actual inferiority in railways for the carriage of goods. The chief cause of the disproportion is the difference in the charge, which on the canals averaged $1\frac{1}{4}d.$ per ton per mile, or one-half of those by railway. On the contrary, I believe, on the side of railways, the advantages of a speedy and certain delivery, uninterrupted by frost or by drought, are so great, in a commercial point of view, that not only can they compete with canals, but that they must ultimately supersede them, if they offer, in addition to the above advantages, that of an equal degree of economy. There can be little doubt that the railways of Belgium could, by a system of low fares and proper accommodation to commercial men, have divided with the canals that traffic of 400,000 tons; but without even encroaching upon the canal traffic, new traffic would have been created by a system of low fares.

Assuming, however, that by holding out every legitimate encouragement to commercial men to send their goods by railway, the traffic had been per mile per annum 200,000 tons instead of 40,000, charged at the canal rates of $1\frac{1}{4}d.$, this branch of the railway traffic would have been a source of profit instead of loss.

The table gives as the charge required to pay 5 per cent. interest with a traffic of 200,000 tons, $1.07d.$ per ton. per mile.

Assumed toll . . .	$1.25d.$	„	„
Profit . . .	$.18d.$	„	„
Which on 200,000 per mile per annum, produces £150,			
And for 350 miles of road then at work, £52,500.			
While the public would thus have been benefited by the more economical carriage of their goods, the difference in the revenue would have been			
instead of	Profit	£52,500	
Or a positive difference in the annual revenue to the State of	Loss	60,100	
That is, upwards of $1\frac{3}{4}$ per cent. per annum on the total capital expended, viz. . . .	Total	£112,600	
			£6,300,000

It will be useful to apply the test of this table to the working of various English lines.

I have collated from a pamphlet entitled *Twenty Short Reasons for Railways being Carriers of Goods**, the following table shewing the rates charged for goods conveyed by 20 of the principal lines in England, at the date of the publication of the pamphlet.

* Liverpool, Waring Webb, Castle Street, 1845.

Dividing them into classes of goods forwarded by the Companies as carriers and of goods forwarded by intervening carriers, and subdividing these again into heavy and bulky goods, such as grain, iron, timber, coals, &c., and into light goods, such as manufactured articles, colonial produce, &c., the average on the heavy and bulky goods is somewhat less than $2\frac{1}{2}d.$, ranging from $1d.$ to $5d.$, and on light goods about $5\frac{1}{2}d.$ on the average, ranging from $4d.$ to $8d.$ for railways that are their own carriers.

The charges are higher on goods forwarded by intervening carriers.

The general average on all classes of goods in these 20 railways, is $5\frac{1}{2}d.$ per ton per mile*.

COMPANIES THEIR OWN CARRIERS.

Length in Miles.	Name of Railway Company.	Rates Charged; Minimum as for Grain, Iron, Timbers; Maximum as for Light Goods in General, excluding Cartage.	
118	Great Western.....	2·3 penny	to 4·9 penny
98	Grand Junction	1·8	“ 4·9 “
77	South Western	3·7	“ 5·2 “
61	Newcastle and Carlisle	1·9	“ 4·9 “
53	Birmingham and Gloucester	1·4	“ 6·8 “
52	London and Brighton.....	3·0	“ 6·9 “
51	Eastern Counties	3·5	“ 8·2 “
46	Edinburgh and Glasgow.....	1·3	“ 4·5 “
42	Birmingham and Derby	1·7	“ 4·3 “
31	Liverpool and Manchester.....	2·9	“ 5·4 “
31	Manchester and Birmingham	2·5	“ 3·9 “
22	Glasgow and Greenock	2·2	“ 5·4 “
20	Preston and Wire	5	“ 6 “
Average.....		2·4d.	5·5d.

GOODS FORWARDED BY INTERVENING CARRIERS.

112	London and Birmingham	3·2 penny	to 7·5 penny
88	South Eastern	2·4	“ 6·8 “
72	North Midland	4·2	“ 8·3 “
60	Manchester and Leeds	4	“ 8 “
45	Great North of England.....	4	“ 8 “
22	North Union	5·4	“ 16d.
29	Lancaster and Union	6	“ 18d.
Averages		4·2d.	10·4d.

The comparison of this table of actual charges made on English railways, with the table of remunerative charge, will bring out some

* Since the publication of the pamphlet referred to, and even within the last few weeks, great reductions have been made in the charges of several of the great trunk lines.

interesting results. The conclusions, however, will be less open to objection, if the comparison be instituted with a table prepared on the average cost of the existing English railways, viz., about £31,000 per mile, with allowances of 5 and 10 per cent. interest thereon respectively.

£31,000 at 5 per cent. requires	£1,550	per mile per annum.
Other fixed charges (as before).....	130	„ „
<hr/>		
Total charge required per mile per annum to produce 5 per cent. interest	£1,680	„ „
The same at 10 per cent. on £31,000 =	£3,100	„ „
Other fixed charges	130	„ „
<hr/>		
Total	£3,230	„ „

To be equally divided, for the reason before adduced—

Return required from the GOODS traffic....	{ at 5 per cent.	£840
	{ at 10 per cent.	£1,615
„ „ PASSENGER do.	{ at 5 per cent.	£840
	{ at 10 per cent.	£1,615

Table showing the diminution in the cost of Carriage per Ton per Mile, consequent on the Increase in the Traffic. (Original Cost of Construction £31,000 per Mile.)

Allowing Interest at the rate of 5 per cent. per Annum on the Capital.				Allowing Interest at the rate of 10 per cent. per Annum on the Capital.			
Average Traffic per Mile per Annum. Tons Net.	Fixed Charge per Ton per Mile for In- terest.	Actual Working Charge per Ton per Mile.	Total Charge.	Fixed Charge per Ton per Mile for In- terest.	Actual Working Charge per Ton per Mile.	Total Charge.	Average Traffic per Mile per Annum. Tons Net.
	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	
20,000	10·08	....	10·53	19·38	....	19·83	20,000
30,000	6·72	....	7·17	12·92	....	13·37	30,000
40,000	5·04	....	5·49	9·69	....	10·14	40,000
50,000	4·03	....	4·48	7·75	....	8·20	50,000
60,000	3·36	....	3·81	6·46	....	6·91	60,000
70,000	2·88	....	3·33	5·53	....	5·98	70,000
80,000	2·52	....	2·97	4·84	....	5·29	80,000
90,000	2·24	·45	2·69	4·31	·45	4·76	90,000
100,000	2·02	....	2·47	3·87	....	4·32	100,000
150,000	1·34	....	1·79	2·55	....	3·00	150,000
200,000	1·01	....	1·46	1·93	....	2·38	200,000
300,000	·67	....	1·12	1·29	....	1·74	300,000
400,000	·50	....	·95	·96	....	1·41	400,000
500,000	·40	....	·85	·77	....	1·22	500,000
1,000,000	·20	....	·65	·38	....	·83	1,000,000

In the above table, I have taken the working charge per ton per mile of goods at 45*d.*, the same as the Belgian experience. I believe that the greater cheapness of coke in this country, and the superior mechanical skill, must reduce the actual locomotive expenses much below

those of Belgium. But against that may be set the taxes and rates, and other charges, from which railways in Belgium are exempt—also the greater speed kept up in this country.

Looking to the application of the preceding tables to a few examples, it appears that, taking the average cost of construction at £31,000 per mile, and allowing 10 per cent. interest on the capital expended, and assuming also the fixed expenses to be equally divided between the goods and passenger traffic, while a line with a traffic of 90,000 tons per mile per annum should charge on the average per ton per mile 4·76*d.*, a line with a traffic of 150,000 tons per mile per annum (nearly that of the Paris and Orleans Railway) could carry with equal profit to the shareholders, at 3*d.* per ton per mile. A line with the traffic of 300,000 tons per mile per annum (about that of the Manchester and Leeds) could carry with equal profit to the shareholders, at 1·74*d.* per ton per mile; while a line with a traffic of 750,000 tons per mile per annum (nearly I believe that of the Liverpool and Manchester) could carry, with equal profit to the shareholders, at the rate of about 1*d.* per ton per mile.

It has always appeared to me extraordinary, that the main trunk lines of England should hitherto have conveyed so small an amount of merchandise. The Paris and Orleans line, so lately opened throughout its entire length, carried last year, of grain and flour alone, 50,000 tons per mile, being for this one description of goods more than the average tonnage on all descriptions of goods in Belgium, a country pre-eminent as one for transit.

Referring to the table of the actual charge on the lines in England (p. 109), I find that the average charge per mile per ton on the London and Birmingham varies from 3·2*d.* to 7·5*d.*; on the Manchester and Leeds, from 4*d.* to 8*d.*; on the Liverpool and Manchester, from 2·9*d.* to 5·4*d.* The average charge by the table for the first would be about 1·22*d.*; for the second, 1·74*d.*; for the third, 1·00*d.*, assuming 10 per cent. interest on a cost of £31,000 per mile.

The extension of the benefits of railway conveyance to all agricultural produce, not having kept pace with their application to other interests, I think it will appear that the high charges have contributed to that result. To illustrate this subject, I have prepared tables of the various remunerative prices for the conveyance of cattle, sheep, horses, &c.

3 FAT BULLOCKS weigh on the average 1 ton.

A fat bullock travels on the average upon a common road, in one day,
15 miles,

And costs when so travelling, per day, 1*s.*, or ·8*d.* per mile.

5½ LEAN BULLOCKS weigh, on the average, 1 ton.

They travel on a common road, on the average, from 15 to 20 miles a day,
say 17 miles.

Their cost varies much, according to the period of the year, but it may be
taken at an average of 3*s.* 6*d.* per 100 miles, say ½*d.* per mile.

On the average, there are 1 ordinary HORSES to 1 ton,

Travelling from 14 to 20 miles per day, say on an average 17 miles,

Costing, when travelling on a common road, per day, 4*s.*,

Or say per mile, 2·9*d.*

20 FAT SHEEP weigh, on the average, 1 ton.

And fat sheep travel on a common road, on the average, 10 to 12 miles a day, say 11 miles,

Costing per day per score*, 6*d.*,

Or per mile, about $\frac{1}{2}$ *d.*

16 Pigs, on the average, weigh 1 ton,

Travel on the common road about 12 miles per day,

Costing per day per score*, 9*d.*,

Being per mile per score, $\frac{3}{4}$ *d.*

With these elements I have prepared the following tables, shewing the varying remunerative charges required per head of cattle, &c., according to the total yearly amount of tonnage per mile, and adapted to the various conditions—

1st, of a per centage on the capital of 5 per cent. and 10 per cent. per annum.

2ndly, of an original cost for construction of £18,000 and of £31,000 per mile.

It is notorious that hitherto, on the majority of the railways terminating in the metropolis or in large towns, the conveyance of cattle, sheep, calves, pigs, &c., for great distances, has been exceedingly small, and thus one of the advantages of railway communication in equalizing the price of provisions is lost.

The table shewing the cost of carriage of this class of traffic, with £31,000 per mile for construction, and 10 per cent. thereon interest, (see page 114),

	Per Fat Bullock per Mile.
Gives a charge for 90,000 tons per mile per annum	1·59 <i>d.</i>
With a traffic of 150,000 tons (the Paris and Orleans traffic), of...	1·00 <i>d.</i>
With a traffic of 300,000 tons (that of the Manchester and Leeds), of	·58 <i>d.</i>
And with a traffic of 750,000 tons (that of the Liverpool and Manchester), of	·30 <i>d.</i>

Now I have stated before that the cost of sending a fat bullock by the common road is $\frac{8}{10}$ *d.* per mile. If, therefore, a railway was to convey fat bullocks at a charge of, say $\frac{6}{10}$ *d.* per mile, being the remunerating charge for an amount of traffic equal to that of the Manchester and Leeds Railway, it would engross to itself all this class of carriage, and hold out a positive inducement to divert the beasts or cattle from other channels by the superior advantages peculiar to railway transit. For it is well known that fat beasts or sheep or pigs lose much of their weight by travelling on the common road.

Referring to the same table, and taking, as before made out, the cost of a lean bullock at $\frac{1}{2}$ *d.* per mile, on the common road, we find the turning point at which the railway can with profit convey these, and beat the common road, is when the total traffic is about 200,000 tons per mile per annum.

* I have found considerable difficulty in obtaining that which might be considered as a fair average cost per day per score, the prices differing so widely according to season, locality, breed, &c. I would observe, therefore, in reference to these two estimates, that, if they be found inapplicable to any particular locality, the tabular results founded on them may easily be modified to suit the exact cost that may be ascertained for the district to which the comparison is to be applied.

Tables showing the Diminution in the Cost of Carriage per Head of Cattle, &c., dependent on the Increase in the Traffic.

Original Cost of Construction £18,000 per Mile.

Allowing interest at the rate of 5 per cent. per Annum on the Capital.							Allowing interest at the rate of 10 per cent. per Annum on the Capital.						
Average Traffic per Mile per Annum.	Cost per mile						Average Traffic per Mile per Annum.	Cost per mile					
	Per Ton.	Per fat Bullock.	Per lean Bullock.	Per Horse.	Per Score of fat Sheep.	Per Score of Pigs.		Per Ton.	Per fat Bullock.	Per lean Bullock.	Per Horse.	Per Score of fat Sheep.	Per Score of Pigs.
Tons Net.	d.	d.	d.	d.	d.	d.	Tons Net.	d.	d.	d.	d.	d.	d.
20,000	6·63	2·21	1·21	1·66	6·63	8·27	20,000	12·03	4·01	2·19	3·01	12·03	15·04
30,000	4·57	1·52	·83	1·14	4·57	5·71	30,000	8·17	2·72	1·49	2·04	8·17	10·21
40,000	3·54	1·18	·64	·88	3·54	4·43	40,000	6·24	2·08	1·13	1·56	6·24	7·80
50,000	2·92	·97	·53	·73	2·92	3·65	50,000	5·08	1·69	·92	1·27	5·08	6·35
60,000	2·51	·84	·46	·63	2·51	3·14	60,000	4·31	1·44	·79	1·07	4·31	5·39
70,000	2·21	·74	·40	·55	2·21	2·76	70,000	3·76	1·25	·68	·94	3·76	4·70
80,000	1·99	·66	·36	·49	1·99	2·49	80,000	3·34	1·11	·61	·83	3·34	4·17
90,000	1·82	·61	·33	·45	1·82	2·27	90,000	3·01	1·00	·55	·75	3·01	3·76
100,000	1·69	·56	·31	·42	1·69	2·11	100,000	2·77	·92	·50	·69	2·77	3·46
150,000	1·27	·42	·23	·32	1·27	1·59	150,000	1·99	·66	·36	·49	1·99	2·49
200,000	1·07	·36	·19	·28	1·07	1·34	200,000	1·61	·54	·29	·40	1·61	2·01
300,000	·86	·28	·15	·22	·86	1·08	300,000	1·22	·41	·22	·31	1·22	1·53
400,000	·76	·25	·14	·19	·76	·95	400,000	1·03	·34	·19	·26	1·03	1·29
500,000	·70	·23	·12	·17	·70	·87	500,000	·91	·30	·16	·23	·91	1·14
1,000,000	·57	·19	·10	·14	·57	·71	1,000,000	·68	·23	·12	·17	·68	·85

So with a horse, the cost of which on the common road averages, per mile, nearly *3d.*, the turning point in the scale or table is an aggregate goods traffic per mile per annum of about 40,000 tons.

The following tables bringing in juxtaposition the comparative cost by railway and by the common road for each class of cattle, horses, sheep, &c., enable the reader to find at a glance the aggregate amount of traffic required to produce the turning point at which the railways can convey with profit at rates cheaper than common roads.

Thus, with an original cost of £18,000 per mile, and interest on the capital at 5 per cent., the turning point with fat bullocks is at or about an aggregate yearly tonnage per mile of 65,000 tons; with lean bullocks, of 55,000 tons; or with an original cost per mile of £31,000, and interest thereon at the rate of 10 per cent. per annum (see page 117), the turning point with fat bullocks is at or about an aggregate yearly tonnage per mile of 200,000 tons; with lean bullocks, of about 175,000 tons.

Original Cost of Construction £18,000 per Mile.

Allowing Interest at the rate of 5 per cent. per Annum.

Average Traffic per Mile per Annum.	Fat Bullocks, 3 to 1 ton.		Lean Bullocks, 5½ to 1 ton.		Horses, 4 to 1 ton.		Sheep, 20 to 1 ton.		Pigs, 16 to 1 ton.	
	Cost per mile per head.		Cost per mile per head.		Cost per mile per head.		Cost per mile per score.		Cost per mile per score.	
	By Rail- way.	By common Road	By Rail- way.	By common Road.	By Rail- way.	By common Road.	By Rail- way.	By common Road.	By Rail- way.	By common Road.
Tons Net.	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
20,000	2·21	....	1·21	....	1·66	....	6·63	....	8·27	
30,000	1·52	....	·83	....	1·14	....	4·57	....	5·71	
40,000	1·18	....	·64	....	·88	....	3·54	....	4·43	
50,000	·97	....	·53	....	·73	....	2·92	....	3·65	
60,000	·84	....	·46	....	·63	....	2·51	....	3·14	
70,000	·74	....	·40	....	·55	....	2·21	....	2·76	
80,000	·66	·8	·36	·50	·49	2·9	1·99	6·0	2·49	9·0
90,000	·61	....	·33	....	·45	....	1·82	....	2·27	
100,000	·56	....	·31	....	·42	....	1·69	....	2·11	
150,000	·42	....	·23	....	·32	....	1·27	....	1·59	
200,000	·36	...	·19	....	·28	....	1·07	....	1·34	
300,000	·28	....	·15	....	·22	....	·86	....	1·08	
400,000	·25	....	·14	....	·19	....	·76	....	·95	
500,000	·23	....	·12	...	·17	....	·70	...	·87	
1,000,000	·19	....	·10	....	·14	....	·57	...	·71	

Original Cost of Construction £18,000 per Mile.

Allowing Interest at the rate of 10 per cent. per Annum.

Average Traffic per Mile per Annum.	Fat Bullocks, 3 to 1 ton.		Lean Bullocks, 5½ to 1 ton.		Horses, 4 to 1 ton.		Sheep, 20 to 1 ton.		Pigs, 16 to 1 ton.	
	Cost per mile per head.		Cost per mile per head.		Cost per mile per head.		Cost per mile per score.		Cost per mile per score.	
	By Rail- way.	By common Road.	By Rail- way.	By common Road.	By Rail- way.	By common Road.	By Rail- way.	By common Road.	By Rail- way.	By common Road.
Tons Net.	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
20,000	4·01	....	2·19	....	3·01	....	12·03	....	15·08	
30,000	2·72	....	1·49	....	2·04	....	8·17	....	10·21	
40,000	2·08	....	1·13	....	1·56	....	6·24	....	7·80	
50,000	1·69	....	·92	....	1·27	....	5·08	....	6·35	
60,000	1·44	....	·79	....	1·07	....	4·31	....	5·39	
70,000	1·25	....	·68	....	·94	....	3·76	....	4·70	
80,000	1·11	....	·61	....	·83	....	3·34	....	4·17	
90,000	1·00	....	·55	....	·75	....	3·01	....	3·76	
100,000	·92	·8	·50	·50	·69	2·9	2·77	6·0	3·46	9·0
150,000	·66	....	·36	....	·49	....	1·99	....	2·49	
200,000	·54	....	·29	....	·40	....	1·61	....	2·01	
300,000	·41	....	·22	....	·31	....	1·22	....	1·53	
400,000	·34	....	·19	....	·26	....	1·03	....	1·29	
500,000	·30	....	·16	....	·23	....	·91	....	1·14	
1,000,000	·23	....	·12	....	·17	....	·68	....	·85	

Original Cost of Construction £31,000 per Mile.

Allowing Interest at the rate of 5 per cent. per Annum.

Average Traffic per Mile per Annum.	Fat Bullocks, 3 to 1 ton.		Lean Bullocks, 5½ to 1 ton.		Horses, 4 to 1 ton.		Sheep, 20 to 1 ton.		Pigs, 16 to 1 ton.	
	Cost per mile per head.		Cost per mile per head.		Cost per mile per head.		Cost per mile per score.		Cost per mile per score.	
	By Rail- way.	By common Road.	By Rail- way.	By common Road.	By Rail- way.	By common Road.	By Rail- way.	By common Road.	By Rail- way.	By common Road.
Tons Net.	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
20,000	3·51	....	1·91	....	2·64	....	10·53	....	13·16	
30,000	2·72	....	1·30	....	1·74	....	7·17	....	8·96	
40,000	1·83	....	1·00	....	1·37	....	5·49	....	6·86	
50,000	1·39	....	·81	....	1·12	....	4·48	....	5·50	
60,000	1·27	....	·70	....	·95	....	3·81	....	4·76	
70,000	1·11	....	·60	....	·83	....	3·33	....	4·17	
80,000	·99	....	·54	....	·74	....	2·97	....	3·71	
90,000	·89	·8	·49	·50	·66	2·9	2·69	6·0	3·36	9·0
100,000	·84	....	·45	....	·62	....	2·47	....	3·09	
150,000	·59	....	·32	....	·45	....	1·79	....	2·29	
200,000	·48	....	·27	....	·36	....	1·46	....	1·82	
300,000	·37	....	·20	....	·28	....	1·12	....	1·40	
400,000	·32	....	·17	....	·24	....	·95	....	1·19	
500,000	·28	....	·15	....	·21	....	·85	....	1·06	
1,000,000	·22	....	·12	....	·16	....	·65	....	·81	

Original Cost of Construction £31,000 per Mile.

Allowing Interest at the rate of 10 per cent. per Annum.

Average Traffic per Mile per Annum.	Fat Bullocks, 3 to 1 ton.		Lean Bullocks, 3½ to 1 ton.		Horses, 4 to 1 ton.		Sheep, 20 to 1 ton.		Pigs, 16 to 1 ton.	
	Cost per mile per head.		Cost per mile per head.		Cost per mile per head.		Cost per mile per score.		Cost per mile per score.	
	By Rail- way.	By common Road.	By Rail- way.	By common Road.	By Rail- way.	By common Road.	By Rail- way.	By common Road.	By Rail- way.	By common Road.
Tons Net.	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
20,000	6·61	....	3·60	....	4·96	....	19·83	....	24·79	....
30,000	4·45	....	2·43	....	3·35	....	13·37	....	17·81	....
40,000	3·38	....	1·75	....	2·54	....	10·14	....	12·67	....
50,000	2·73	....	1·50	....	2·05	....	8·20	....	10·25	....
60,000	2·30	....	1·26	....	1·73	....	6·91	....	8·64	....
70,000	1·99	....	1·09	....	1·49	....	5·98	....	7·47	....
80,000	1·76	....	·96	....	1·32	....	5·29	....	6·63	....
90,000	1·59	·8	·86	·5	1·19	2·9	4·76	6·0	5·95	9·0
100,000	1·44	....	·79	....	1·08	....	4·32	....	5·40	....
150,000	1·00	....	·55	....	·75	....	3·00	....	3·75	....
200,000	·79	....	·43	....	·59	....	2·38	....	2·97	....
300,000	·58	....	·31	....	·43	....	1·74	....	2·17	....
400,000	·47	....	·26	....	·35	....	1·41	....	1·76	....
500,000	·31	....	·22	....	·31	....	1·22	....	1·53	....
1,000,000	·28	....	·15	....	·21	....	·83	....	1·04	....

Tables similar to the preceding, prepared with a view to show the comparative cost at which railways and canals could afford to carry various classes of goods, would be exceedingly useful. They would demonstrate that with a sufficient amount of traffic approaching, for example, to that of the Liverpool and Manchester, or about that of the Manchester and Leeds railways can convey, with remunerative rates, at fares lower than canals. And when this comparative cheapness is taken into account jointly with the other advantages of speed and regularity in the transit, it becomes manifest that wherever there is much movement in the conveyance of goods, railways must take the lead.

Carriage of Parcels.

Before leaving this part of the subject, I am desirous to advert to the question of the conveyance of parcels. I had prepared the details of some facts to be submitted to the Society, tending to show many practical inconveniences in addition to the drawback of expense, to which might be in part attributed the small amount of traffic obtained by railways in the carriage of parcels. But the following statement, published in a morning paper* of the 11th instant, by showing an important movement in the right direction, will render the production of some of these statements unnecessary. It is besides more pleasing to record improvements than indicate defects.

* "Morning Chronicle," 11th March, 1846.

“The Manchester and Leeds Railway Company’s Report, presented by the Directors to the Proprietors on Wednesday last, stated that the principle of low fixed rates, irrespective of distance, had been applied to the carriage and delivery of parcels, not only on their own line, but also on neighbouring lines. On Monday last, at a meeting of the Trent Valley Railway Company, Mr. Edward Tootal stated that on the series of lines connecting Manchester and Liverpool with Birmingham and London, combining the London and Birmingham Grand Junction, Manchester and Birmingham, and Trent Valley Lines, in future to be under the management of an amalgamated and consolidated Company, under the title of the London and North Western Railway Company (possessing a capital of fourteen millions sterling), all parcels under 12lb. weight would be carried from one end to the other, and to all intermediate places, at the uniform charge of 1s.; and that this plan was ultimately to be extended to all the lines between Falmouth and Dover at the south, and Glasgow at the north.”

Hitherto parcels were charged various rates, not only according to the distance, but according to the train by which they were dispatched, and it was an irksome thing to remember the proper time for sending them at the lower rates, and to calculate the expense according to the distance. This expense was so great, that in the case of small parcels, the bulk of which admitted of being separated into several, so as to bring these within the weight required by the Post Office regulations, it had become a very general practice to take the channel of the Post Office in preference to the direct railway conveyance.

So far, therefore, this is a very great improvement both as regards the uniformity in the charge and the reduction in its amount. I have not the data with reference to parcels requisite for the formation of tables similar to those previously submitted with reference to other kinds of traffic; but in the absence of these, I would simply refer to the great experiment of Post Office reform, and the success of the Metropolitan Parcel Delivery Companies, to support my belief that such an arrangement, if it extended the reduction still further to 6d. per parcel, or even to 3d., would prove equally, if not more remunerative.

Viewing the question of the delivery of parcels as respects regularity and economy, it is probable that the Post Office authorities, by having the distributary apparatus ready at their hands, and already adapted for this special service, could accommodate the public at rates lower than separate Companies, all requiring to incur the expense of separate management. It behoves the Companies, therefore, if they wish to retain this source of traffic under their own controul, without any intermediate agency, to make the charges so low that there shall arise no public or general desire that it should be confided to the Post Office.

Passenger Traffic.

Before concluding these observations, it will be useful to extend the same reasoning to the consideration of the passenger traffic. I believe, especially with regard to the *conveyance of goods*, that it is important to direct attention to the encouragement that may be given to its increase by a lowering of fares. With respect to passenger traffic

much has already been accomplished to reduce the tolls to a low charge; but it is believed that Companies destined to accommodate populous neighbourhoods may, with benefit, carry their system of reduction still further.

The Gauge Commissioners' Report gives at $46\frac{1}{2}$ tons, exclusive of engine and tender, the total weight of a train capable of containing 126 first-class passengers, being thus composed, viz.

7 carriages weighing about	34 tons.
126 first class passengers with their luggage	$12\frac{1}{2}$ „
Total load.....	$46\frac{1}{2}$

or, in round numbers, three first-class passengers to a ton gross weight; taking, however, the mean for all passengers, the number per gross ton will of course be more; I assume it at six passengers per ton gross.

Now in the preceding tables (pp. 107 and 110), the charge per ton per mile is the return per ton net, made up first of a fixed charge for interest, &c., determined by the tonnage, and a constant addition of $\cdot 45d.$ per ton per mile deduced from the experience of the Belgian Railways. The working expenses of a passenger train per ton per mile are considerably greater than those for the conveyance of goods, owing to the greater speed, expense of plant, class of officers, &c.

The average working of nine years on the Belgian railways gives the cost per ton per mile for passenger trains at $1\frac{2}{10}d.$; and although the difference of speed might lead to the supposition, that the cost would be less on the Belgian than on the English railways, the greater skill of the English engineers and managers, and the greater cheapness of coke must, I have no doubt, enable them to work at their higher speed with an economy equal to that of the Belgian railways, even including the passenger tax; I assume, therefore, in the following tables $1\cdot 2d.$ as the cost per ton per mile of passenger trains.

An inspection of the following tables (pp. 120 and 121) shows of how great importance it is to the public, that the traffic per line should be great.

Taking the cost at £31,000 per mile, and allowing 10 per cent. interest on the capital, we find that a line with an average number of passengers of 120,000 per mile per annum should charge per mile per passenger, on the average	<i>d.</i> 3·86
While a line with the traffic of the Manchester and Leeds (about 650,000 passengers per mile per annum,) may charge	0·9
A line with the traffic of the London and Birmingham, (viz., about 700,000 per mile per annum).....	0·85
With a traffic of $1\frac{1}{4}$ million (Paris and Orleans)	0·52
Do. $1\frac{1}{2}$ „ (London and Greenwich)	0·50
Do. 3 „ (London and Blackwall, Qy?)	0·33
The actual charges on the London and Birmingham were in 1841 per mile per passenger	2·609
In 1845 they were reduced to	1·818

By this important reduction, the public benefited to the amount of many thousands, the increase in the number of passengers having been in 1845 fifty-seven per cent., (or for the half-year as 222,000 is to 346,000*.)

* In the Report of the Parliamentary proceedings of the 19th March, 1846, it is stated that the London and Birmingham, Grand Junction, and other amalgamated companies propose to reduce their charges still more, that is to say, to $2d.$ per mile per 1st class, $1\frac{1}{2}d.$ per mile per 2nd class, and $1d.$ per mile per 3rd class passenger.

Without pursuing these illustrations into further detail, I conclude from them that the public and the Companies are both highly benefited by a large concourse of goods or passenger traffic on any one line, provided that the managers of such line are alive to the advantages to themselves of encouraging the influx of traffic, by extraordinary reductions on tolls and fares. Referring to actual results, such of the great Companies as have tried the experiment of low fares, have found their receipts increased. The London and Birmingham and Grand Junction, the Great Western, the South Eastern, the Brighton, and others have reduced their fares for passengers, and by return tickets, season tickets, and other means, rendered the travelling much less expensive. They have likewise made great reductions in their charges for goods, and the result has been a profit by the change. The reductions, however, have as yet only been applied timidly, and not to the extent required to give fair play to the principle. Hence we still see, on the majority of the lines, and we indeed see it officially reported, that their trains do not travel half or a quarter full. There is, of course, a limit to this *profitable* reduction, but I believe it has not yet been attained on the great lines. On short lines the working expenses are proportionally so much greater, that the limit with them will generally be (*cæteris paribus*) at a higher standard.

I have shown, with regard to goods, that in Belgium, while the canals carried on the average 400,000 tons of goods per mile per annum, the railways, owing to their high charges and want of proper accommodation for the goods traffic, carried only 40,000 tons.

Now there is no doubt that the railways can carry at as cheap a rate as the canals, and that they offer superior advantages, which ought to give them the preference without any chance of competition from canals. I attribute this inconsistency between actual results, and results that ought to be, to the neglect of an important branch of railway accommodation.

As regards the passenger traffic, I conceive that on those lines where we now see a return of the conveyance of 1,000,000 passengers per mile per annum, we shall soon see returns of double or treble that amount*. There are railways now considering the propriety of contracting for the daily conveyance of artisans to and from their abodes near the metropolis to their places of work, at rates so low, that the rent of their houses in the country, supplied with every requisite, added to the cost of their conveyance by railway morning and evening, will be less than the rents which they pay for the miserable hovels in which they now reside.

I introduce this topic for the sake of drawing attention to an important principle enunciated in some observations which I shall quote, viz., that the conveyance of the masses, *i. e.*, of third class passengers, should have a close relation to the cost of conveyance of goods, weight for weight. More room and better accommodation must be afforded them; but as a set-off to the additional expense incurred on that score, there is a great saving in the time and cost of loading and unloading. In order to adhere throughout this essay to a purely statistical cha-

* 47,778 passengers are stated to have been conveyed in a single day from the London Bridge Station of the South Eastern Railway.

racter, I designedly avoid entering into the general question which is here incidentally referred to.

I quote the following passage from the report of the speech of the Chairman of the London and Croydon Railway Company, at a general meeting of the shareholders held on the 10th of this month*. The Chairman stated that "an Association had been recently established in London for improving the dwellings of the working classes. A very intelligent member of that Association considered that it would be an error of judgment to improve the habitations in London, and had repeatedly urged the erection of suitable tenements within five or six miles of London, in order that they and their families might enjoy the pure air of the country. He considered further, that this plan might be effectually carried out by the means of railways, and a proposal had been made to the Board by an eminent architect, who, in his zeal for the industrious classes, proposed to construct a railway for the purpose of carrying out his plan with greater effect. But, in the first instance, he came to the Directors to ascertain if they would take these people home and back again at a cheap rate. And he considered that they might effect the desired object if they could carry these people as if they were goods, and at as cheap a rate as goods were conveyed. He saw no reason why they should not accept the proposition, and bring an additional amount of traffic on their line, thus increasing their profits, and conferring great advantages on the industrious classes of the community, by removing them from the moral and physical effluvia generated in all large and densely-populated cities, afford them better houses, better water, better lighting, and in short, almost a change of existence."

Now, if such an arrangement as this were carried out, and believing that in a commercial or a financial point of view, it will be to the interest of metropolitan railways, and all railways generally terminating in very populous towns, to facilitate the carrying out of any arrangements which will have the effect of making their railway accessible to the great masses—ininitely small profits *multiplied by millions* will, in a public and private point of view, be better than large profits *multiplied by thousands*, or perhaps only *hundreds*. To carry out any such arrangement as is here contemplated, of course the utmost economy consistent with safety and protection from the weather would be studied. The first item of saving would be by a diminution in the speed (perhaps not exceeding 20 miles an hour), whereby considerable reduction would be made in the working charges—also the number of passengers per ton would be more than the previous average taken, which comprised in the data the weight for the accommodation of first-class passengers.

In the annexed tables (pp. 124 and 125) I have illustrated this subject of an economical and profitable conveyance of numbers brought to the utmost limit. In goods trains properly loaded, the average net weight to the gross weight is about $\frac{1}{2}$, or as one ton net to two tons gross. The same proportion of net to gross weight would hold for the conveyance of passengers for the purposes just explained, and we should thus have to every two tons gross weight fifteen passengers conveyed.

* "Morning Chronicle," 11th March, 1846.

*Table showing the Diminution in the Cost of Carriage per Passenger, dependent on the Increase of the Traffic.
(Special Illustration adapted to the convenience of great numbers as explained in preceding pages 122 and 123 of the text.)*

Original Cost of Construction £18,000 per Mile.

Allowing Interest at the rate of 5 per cent. per Annum on the Capital Expended.					Allowing Interest at the rate of 10 per cent. per Annum on the Capital Expended.				
Average Passenger Traffic per Mile per Annum. Tons gross.	Average No. of Passengers corresponding to gross Tonnage. 7½ to 1 Ton gross.	Per Ton gross per Mile.			Average Passenger Traffic per Mile per Annum. Tons gross.	Average No. of Passengers corresponding to gross Tonnage. 7½ to 1 Ton gross.	Per Ton gross per Mile.		
		Fixed Charge for Interest, &c.	Actual working Expenses.	Total Charge.			Fixed Charge for Interest, &c.	Actual working Expenses.	Total Charge.
		<i>d.</i>	<i>d.</i>	<i>d.</i>			<i>d.</i>	<i>d.</i>	<i>d.</i>
20,000	150,000	6·18	...	6·11	20,000	150,000	11·58	...	11·81
30,000	215,000	4·12	...	4·35	30,000	215,000	7·72	...	7·95
40,000	300,000	3·09	...	3·32	40,000	300,000	5·79	...	6·02
50,000	375,000	2·47	...	2·70	50,000	375,000	4·63	...	4·86
60,000	450,000	2·06	...	2·29	60,000	450,000	3·86	...	4·09
70,000	525,000	1·76	...	1·99	70,000	525,000	3·31	...	3·54
80,000	600,000	1·51	·23	1·77	80,000	600,000	2·89	...	3·12
90,000	675,000	1·37	...	1·60	90,000	675,000	2·56	·23	2·79
100,000	750,000	1·24	...	1·47	100,000	750,000	2·32	...	2·55
150,000	1,125,000	·82	...	·85	150,000	1,125,000	1·54	...	1·77
200,000	1,500,000	·62	...	·65	200,000	1,500,000	1·16	...	1·39
300,000	2,250,000	·41	...	·44	300,000	2,250,000	·77	...	·81
400,000	3,000,000	·31	...	·34	400,000	3,000,000	·58	...	·61
500,000	3,750,000	·25	...	·28	500,000	3,750,000	·46	...	·49

The average charge for working expenses was stated to be (p. 119) 1·2*d.* per mile per ton net on passenger trains generally. The lower speed for the accommodation of the passengers now considered, would reduce this charge considerably, in fact bring it to the 45*d.* per ton net per mile, found to be the working cost of goods trains on the Belgian railways. Taking therefore 23*d.* as the cost per ton gross, and applying the proportion above deduced of fifteen passengers to two tons gross weight, I have constructed the annexed tables, (pp. 124 and 125,) again as before divided into four classes, viz. :

1st. Two in relation to the costs of construction of £18,000 per mile, and £31,000 per mile.

2ndly. Two in relation to the interest on the capital of 5 per cent. per annum, also to the interest of 10 per cent. per annum.

Conclusions from preceding Analyses and Tabular Deductions.

Assuming that which from the past management of many of the English Railways, I am warranted in assuming, viz. : that an enlightened desire to meet the wants of the public as to economy, speed, and safety, will continue to be the ruling motive of the managers; it is clearly to the interest of the public that where hitherto 500,000 passengers have travelled, 1,000,000 should by reduced fares and increased accommodation be induced to travel in future;—and that where hitherto 500,000 tons of goods have been conveyed, a demand should be created by reducing the charges, for the conveyance of 1,000,000 tons.

But this important benefit cannot be obtained by the formation of directly competing lines, which must divide the traffic between them, and thus of necessity prevent that great reduction of tolls and fares which the tables show to be consistent only with increase of traffic.

By the same tables it appears that where the traffic is very large the original cost of the railway has an influence on the amount which it is necessary to charge by no means proportionate to the relative costs. For example, with an amount of passenger traffic corresponding to 500,000 tons per mile per annum, the expense of conveying a passenger is, with an original cost of £31,000, and an allowance of 10 per cent. interest thereon, 13*d.* or $\frac{13}{100}$ *d.*; whereas, with the original cost of £18,000, and a similar allowance of 10 per cent. interest, the cost of conveying a passenger is 9*d.* or $\frac{9}{100}$ *d.*

The same tables shew that with an average passenger traffic, corresponding to 40,000 tons per mile per annum, the remunerating charge at 10 per cent. interest, and £31,000 original cost per mile, is 1 $\frac{3}{4}$ *d.* on the average.

And that with a passenger traffic corresponding to 500,000 tons per mile per annum, a charge of $\frac{13}{100}$ *d.* would produce the same remuneration of 10 per cent. on the same original cost of £31,000 per mile.

But if railways are thus, for the advantage of the public, to convey great numbers of passengers and great quantities of merchandise, it is most important that no system be peremptorily and finally adopted which shall limit the powers of railways to give accommodation to that prospective increase of traffic. All railway systems ought to be eminently expansive; and to take what has been accomplished in the past as a criterion of what is to be accomplished in the future, nay, of

that which the public will shortly demand, and to found any conclusion on such a narrow basis, would be most detrimental to the public interests. These demand from our engineers (and they will, I doubt not, satisfy the demand) increased power, increased speed, and increased economy.

Let us bear in mind that the railway system is but commenced; and looking at the great improvements which have been made in locomotives, enabling them to accomplish the conveyance of loads double those they could draw some years ago, let us be careful in adopting the present average speed and loads of passenger and other trains as the speed and loads that will be required some years hence by the public. Let us not devise our future works and arrangements with the idea of "finality" to cramp our exertions.

The traffic is not simply to be diverted from existing channels,—it is to be created by every encouragement of cheapness of transit, regularity, safety, adaptation to the wants of the public, and enlightened economy in the management and working.

These objects can only be fully attained by the cordial co-operation of all officers employed on railways; and all must be so remunerated as to be encouraged in making the strenuous efforts which are essential to introduce the improvements thus indicated.

Companies should themselves undertake (without mediators) the conveyance of goods. The communication ought to be direct between the great commercial and manufacturing public and the railway managers. Otherwise the bold reductions recommended in the carriage of goods would probably be attended by a loss, for they would not in all likelihood be met by corresponding reductions by carriers, and the public would not have the attraction of the very low fares so essential to secure great quantities. There are *defects* inherent in the practice of conveyance of goods by intermediate carriers which must of necessity act as a discouragement to the increase of traffic. For example, by the present system of sending merchandise through the instrumentality of carriers, intermediate stations in relation with the smaller towns do not afford them daily communication, because the carriers have not a sufficient amount of goods to load a truck for each day. If, on the contrary, the carriage of the goods were in the hands of the Company, inasmuch as the goods for each town would not be divided into as many loads as there may be carriers to that station, the delivery could be a daily one. Hence the public would have the advantage of a more exact service, and of greater dispatch, the effect of which would be an increase in the amount.

The payment of two managements, double profits, &c., must of course enhance the charges. The public interest, moreover, does not so quickly identify itself with that of private carriers as with that of great Companies, and does not act so quickly upon the former as upon the latter.

Considering the item of economy in the working expenses, chiefly in that part embraced under the head of locomotive expenses, viz., coke, oil, &c., the tables show that when the traffic is so great as to make the fixed charge for interest per ton very small, this item of working cost is most important. Now various means have been adopted to reduce this cost, which I shall simply report upon without recommending any in particular.

One of these methods has been, and continues to be adopted by the Superintendent of the Manchester and Leeds Railway, who, after having had considerable experience of the effect of working the locomotives in the usual way at the direct cost of the Company, let the work by contract to the engine-drivers and others, including supply of coke, oil, &c., and repair of engines; the result was astonishing, the saving being found to be as 17 to 30, or more than one-half.

I am informed that it was curious to see the effect of this plan in keeping regularity on the line. On arriving at a station, if there were any unusual delay, immediately the engine-driver whose steam was being thereby wasted, and whose profits were proportionately diminished, roused the guards and superintendents, and thus his interest succeeded better in introducing regularity than the supervision of the police. The saving in materials, coke and oil, was quite unexpected in amount.

I learn "that on the Great Western Railway the engine-drivers have had for some time the benefit of an arrangement similar to that of the Manchester and Leeds. A certain fixed amount of coke per mile is allowed to them, and the quantity saved by them at the week's end is taken note of, and they receive a certain per centage of the value of the coke thus saved. The effect produced is seen in the smallness of the present fixed allowance per mile as compared with the quantity allowed at first." My informant, who has tested the efficacy of the principle, adds, "I think there can only be one opinion as to the policy of giving the mechanic a direct interest in his work."

On the Paris and Orléans line a bonus is held out for a similar object to the engine-drivers, and locomotive department generally, by giving them a share in the profits arising* from the saving they effect in the consumption of coke. The expenses by that plan diminished upwards of 7 per cent. in 1844 as compared with 1843, the difference in the cost of coke being only 2 per cent. in the corresponding years.

The same Company carry still further the principle of allowing their *employés* to participate in the surplus profits where these have reached above a certain per centage, and the following details explain the general plan hitherto followed in the distribution of such profits.

The Paris and Orléans Railway Company conceive that they have obtained, from this regulation, results highly satisfactory. The arrangement consists in holding out encouragements for efficient services performed with due attention to economy, by giving a right to the persons employed in the service of the Company to a participation in the profits above 8 per cent., according to a scale dependent upon the relative station and usefulness of each.

For the year 1844 the division of profits was made according to the following statement:—

(The exchange is taken at £1 = 25 francs.)

	Fs.	£
The total receipts for the year were.....	6,901,786	= 276,071
Expenses	3,286,662	= 131,466
Net receipts.....	3,615,124	= 144,605

* See Report, dated 29th March, 1845, page 17.

	Fs.	£	£
Brought forward			144,605
The statutes regulate the application of this surplus as follows:—			
1 per cent. sinking fund on the capital stock of the Company	400,000	=	16,000
3 per cent. interest on redeemed and redeemable shares.....	1,200,000	=	48,000
Annuity to Mr. Leconte, the grantee	12,000	=	480
Dividend to the shareholders, equal to 8 per cent. per annum, including the interest on the redeemed and redeemable shares, and the sinking fund.....	1,600,000	=	64,000
			128,480
Total payments as fixed by the statutes	3,212,000	=	128,480
Excess to be accounted for as follows			£16,125
15 per cent. on this surplus to be divided among the officers and men of the Company	Fs. 60,468	=	£ 2,418 14 4
Remains for additional distribution among the shareholders	312,655	=	13,706 0 0
Which added to the	1,200,000		
and	1,600,000		
previously set aside, gives	3,142,655	=	125,706 0 0
Or at the rate of about 9 per cent. on the capital stock of the Company.			

Mode of Distribution.

The distribution of the 15 per cent. above mentioned was regulated as follows:—

The officers and men employed by the Company are divided into three classes, viz.—

In the first,—engineers and superintendents.—The managers of departments and such others among the responsible officers as may be deemed entitled to be ranked in this category by the Directors.

In the second,—all responsible officers not included in the first, and such others as may be deemed entitled by the Directors.

In the third are comprised all others engaged by the year in the service of the Company, *i. e.*, receiving an annual salary.

For the first class, each one will be entitled to $\frac{1}{3.00}$ of the 15 per cent. for every 1000 francs (£40) of his annual salary.

For the second class, the participation will be $\frac{1}{5.00}$ for each 1000 francs (£40) of annual salary; one-half the share so falling to each member of this category shall be invested either in stock or in a savings' bank, to be held in trust for the benefit of the person entitled, by the Directors of the Company, whose sanction will be required for the withdrawal or assignment of the same; the second half will be paid in cash.

The balance will be assigned to the members of the third class as follows:—

The one-half shall be assigned among all the members, in proportion to their respective annual salaries, and be similarly vested either in the savings' bank or stock, in the name of the Company as trustees.

for the benefit of each. The second half shall be distributed in cash, on the recommendation of the superintendents, to those members of the division who shall have distinguished themselves.

For 1844 these additions to the annual incomes were as follows:—

	Fs.	£	s.	d.
For the 1st class, the total salaries of which amounted to 70,000 fs. (£2,828), the increase was rather more than 20 per cent. on the salaries.....	14,260	=	570	8 0
For the 2nd class, the total salaries of which amounted to 103,800 fs. (£4,152), the increase was rather more than 12 per cent. on the salary	12,552	=	502	1 7
For the 3rd, the total salaries of which amounted to 743,572 fs. (£29,743), the increase was rather more than 4½ per cent. on the salary	33,665	=	1,346	12 0
Totals.....	60,468	=	2,419	1 7

Whatever may be the means taken to hold out encouragement to the subordinate servants of railway companies, I believe that it is very important for the interests of the public, as well as those of the railway companies themselves, that some means should be devised to make the *employés* directly interested in the increase of profits which they may be instrumental, although it may be only to a small degree, in producing.

The superior officers of a great company will, generally, be supported in the very great mental exertion and bodily fatigue their arduous duties call upon them to undergo, by their sense of justice to their employers, and the praiseworthy desire for distinction and consequent improvement in their positions and incomes; but such motives cannot be supposed to influence equally all the subordinate servants, down to the very workmen; and there can be no doubt, that upon the willing efforts of all, without excepting those in the most subordinate grades, will the successful introduction of reforms, tending to the very economical conveyance of great numbers of passengers and great quantities of goods, in an essential degree depend.

Nothing is further from my views, than the adoption of any expression that could be construed into a belief, that the subordinate *employés* of railways would *consciously* relax in their efforts to discharge their duties efficiently; it is, on the contrary, universally acknowledged, that railway companies are exceedingly well served; still, where a man's salary constitutes the whole of the revenue he derives from his office, and with little prospect of any increase in his salary by extra exertions, it is not in human nature generally to volunteer these exertions beyond the requirements of ordinary routine business.—“It is the interest of every man to live as much at his ease as he can; and if his emoluments are to be precisely the same, whether he does or does not perform some very laborious duty, it is certainly his interest, at least as interest is vulgarly understood, either to neglect it altogether, or, if he is subject to some authority that will not suffer him to do this, to perform it in as careless and slovenly a manner as that authority will permit. If he is naturally active and a lover of labour, it is his interest to employ that activity in any way from which he can derive

some advantage, rather than in the performance of his duty from which he can derive none*."

The increase in goods traffic, where it is to depend either upon the diversion of existing traffic from inferior channels into which habit continues to drive it, or upon the creation of new traffic by the facilities offered, may be undoubtedly effected by the individual efforts of those officers, who by their situations come into frequent contact with the controllers of such traffic—the station superintendents for example. If these knew that their emoluments would be increased in proportion to any increase in the traffic at their stations—they would, if in an agricultural district for example, avail themselves of their opportunities of contact with the farmers of their neighbourhood, to point out to them the advantages offered by the railway for the conveyance of manure, or agricultural produce—if in a mineral district, or a locality possessed of any natural product imperfectly explored, they would make it their study to learn the wants of such districts as regards facility of transit, and if necessary make such wants known, or point out the required improvements. The results of such activity and exertions at one station or in one isolated case would be insignificant; but if a spirit of this kind could by any system be infused into all the members of the general body of the assistants, the results of their united exertions would in the aggregate be most important.

If, on the other hand, the *employees* feel that by increase of labour they only add to their own toil without any corresponding increase in their emoluments, the majority will allow things to remain as they find them, and feel no desire beyond that of just doing their duty and no more.

When on lines of railway already commanding very great traffic, observations are made tending to show that by some light extra exertion, or by trifling alterations in arrangements to meet public demand, the conveyance of a new class of goods can be secured, or its quantity much increased—sometimes the remark is made, "that really the line is as full as it well can be, and any great addition will only tend to create confusion."

At other times, the recommendation to open out a new source of income to a railway by the carriage of some species of heavy goods hitherto conveyed by canal, is met by the observation, that "really the goods trains are already so numerous as to interfere sadly with the passenger traffic"—"that the latter is the most profitable, and therefore the most worthy of all attention,"—and thus an improvement is delayed, or it may be altogether omitted.

Now it is questionable whether such observations would occur, if with every increase of traffic, and consequent increase of profit, a corresponding increase took place in the emolument of the servants of the Company.

There would be no difficulty in selecting appropriate illustrations of great improvements that have been brought about by the enlightened exertions of persevering managers of railway traffic, and in relation to goods as well as passengers. So little has hitherto been done, however, towards rendering railways available for the carriage of

* Dr. Adam Smith's "Wealth of Nations," book v. cap. 1.

provisions, that I prefer giving one or two examples of what has been accomplished in this way—taking for instance the supply of fish, as being an article of food, the conveyance of which is by no means popular with traffic superintendents, and it may be fairly added with the public also, owing to the careless and positively offensive way in which it is thrust in sometimes in the same carriages with second and third-class passengers.

Until lately, but small attention had been paid to the conveyance of fish to Manchester, and its price then ranged from 6*d.* to 1*s.* per lb. At that time the weekly supply brought chiefly from Hull was about three tons per week per railway. Through the exertions of Captain Lawes, facilities were offered for the conveyance of fish from Hull to Manchester at rates similar to those charged for the ordinary heavy merchandise amounting to 16*s.* to 20*s.* a ton, or about one-tenth of a penny per lb. At first the great reduction in the cost of carriage had but little effect on the price, the fish vendors continuing to sell the fish at much the same rate as before, and consequently the amount brought by railway was increased but little. The principle of competition was brought to bear upon the fish sellers, and the consequence has been a reduction in the price to 1½*d.* to 2*d.* per lb.

The carriage by railway has increased from three tons to eighty tons weekly—thus the Railway Company as carriers, the public as consumers, and the fishermen as producers, have all been gainers by this improvement, the result of the exertion of an enlightened manager.

It must not be supposed that even so trifling a change as this from the established practice can be accomplished without trouble. To prove the reverse, it is sufficient to state that the fish from Hull to Manchester has never got further, as the Liverpool and Manchester Company refused to carry it on the same terms.

The Preston and Wyre Company and the Manchester and Bolton Company established a similar fish trade from Fleetwood to Manchester, but it was suddenly stopped by the North Union Company (an intermediate link) insisting on a charge larger than both the other Companies' charges put together.

During the scarcity of hay which prevailed last season, the Manchester and Bolton Railway and the Preston and Wyre Railway Companies carried hay from Ireland to Manchester, at a charge for 50 miles of 10*s.* 4*d.* per ton, and this with the charge for the sea transit and the land transit on the Irish side, still left the hay considerably cheaper than that to be then purchased from the immediate neighbourhood.

Facts and Calculations respecting the Population and Territory of the United States of America. By the late DR. CURRIE.

[THE following notes on the population and territory of the United States were prepared by Dr. Currie near the close of the last century. They were found among his papers by his son, the late Mr. W. Wallace Currie, of Liverpool, who transmitted them to Mr. Porter, of the Board of Trade, at a very recent date. Through his kindness we are enabled to put them on record in the pages of our Journal, where they merit a place by the intrinsic value of the facts, and the ingenuity of the calculations. Since their date there has been an uninterrupted series of decennial censuses. Abstracts from these are subjoined, closing with the agricultural statistics derived from data collected at the period of the last census in 1840, which have a temporary interest, as well as a permanent value. These abstracts have appeared at successive periods in the *American Almanack*.]

Population of the United States.

It is well known that about a century ago, the country which now composes the United States of America, contained but a few thousand civilized inhabitants, and that now the same country contains four or five millions.

But the causes of this vast increase of numbers seem not to be equally well understood. It is believed that many persons still suppose the population of America to be chiefly indebted for its growth to emigrations from other countries; and that it must become stationary when they cease to take place. Some facts and calculations will be set down upon this sheet, to ascertain the ratio of the natural increase of the inhabitants of America, and to show that the great progress of wealth and population in that country, is chiefly derived from internal causes, and of course less liable to interruption from without.

The highest estimate that is recollected, of the number of inhabitants removing to America in any one year, supposes the number to be 10,000*. If the same number had removed every year since the first settlement of the country, it would make in the whole about 1,600,000. But it is to be remarked that this estimate was made for a period when emigrations were unusually numerous; that during the many years of war which have taken place they have been very few, and that in former years, when the number of emigrants was complained of *as an evil*, it was not reckoned so high†. We may therefore suppose that 5000 persons per annum is a liberal allowance for the average number of persons removing to America since its first settlement. This, in the year 1790, would amount to 800,000 persons.

At the end of 1790, and beginning of 1791, there were enumerated in the General Census, the number of 3,993,412 inhabitants‡. As some places were not enumerated at all, and from others no return was made, there can be little doubt but the actual number then, was something more than 4,000,000. Supposing them to have increased,

* Cooper's Information.

† Douglas's Summary, vol. ii., p. 326.

‡ See the Census of 1791.

so as to double their numbers once in twenty years—then, in the several preceding periods of twenty years, since the year 1630, the numbers would stand thus—

At the end of 1790.....	4,000,000	At the end of 1690.....	125,000
„ 1770.....	2,000,000	„ 1670.....	62,500
„ 1750.....	1,000,000	„ 1650.....	31,250
„ 1730.....	500,000	„ 1630.....	15,625
„ 1710.....	250,000		

but as this last date reaches back to the infancy of the first settlements in North America, it can hardly be supposed that they contained so many as 15,000 inhabitants. It follows, therefore, that they must have doubled their numbers oftener than once in twenty years—that is, they must have increased faster than at the rate of 5 per cent., compounding the increase with the principal at the end of every twenty years.

To determine how far this ratio of increase is justified by other facts, some pains have been taken to ascertain and compare the number of inhabitants at four different periods, viz., 1750, 1774, 1782, and 1791. The following estimate has been formed of those numbers about the year 1750:—

In 1751 Massachusetts* contained	200,000
„ Connecticut.....	100,000
„ Rhode Island†.....	30,000
„ New Hampshire	24,000

In 1756, one account‡ says New York contained	100,000
„ Another§	96,775
In 1750, suppose therefore it contained	90,000
In 1745, New Jersey contained	61,403
In 1750, suppose therefore	66,000
In 1760||, in Pennsylvania the Taxables were.....	31,667
In 1793, ditto	91,177

By a conjectural proportion, therefore, the number of Taxables in 1791 must have been about 86,000. Then as 86,000 is to 434,373, (the number of inhabitants in 1791,) so is 31,667 to 159,945 the number of 1760, which subtracted from the Census of 1791, gives an increase of 274,428 for thirty years, of which one-third part, or 91,379 is the mean increase for ten years; but supposing the increase for the ten years previous to 1760 to have been but 70,000, there will remain for the whole number in 1750..... 89,945

Delaware.—Suppose in the same proportion to its present numbers as Pennsylvania

In 1751 or 1752¶, in Maryland the Taxables were	40,000
---	--------

Taxables are understood to be all white men above 16 years of age, and all black persons from 16 to 60—say then that to every 100 white males above 16 there are

100 ditto below 16, and
200 white females of all ages—
200 blacks from 16 to 60, and
200 of all other ages

Total 800 of which 300 are Taxables**, then as 300 is to 800, so is 40,000 to

Carried over..... 106,666 612,169

* Douglas's Summary, vol ii., p. 180; Smith's History of New York, p. 225.

† Morse's Geography says that in 1748 Rhode Island contained 31,128.

‡ Smith, p. 225.

§ Morse's Geography.

¶ Cox's View, p. 481.

¶ Douglas, vol. ii., p. 363.

** Jefferson, p. 129.

Brought forward	106,666	612,169
But as in those States the number of blacks is to that of whites only as 10 to 11, deduct therefore $\frac{1}{11}$ nd part of this number....	4,121	
		102,545
In 1750, in Virginia*, Tytheables were	100,000	
Then by the same rule as before, as 300 is to 800, so is 100,000 to	266,666	
Deduct in the same proportion as for Maryland	12,121	
		254,545
The numbers of the following States must be supplied in a great measure from conjecture :—		
1710 in North Carolina, the whole number of inhabitants	10,000	
1750 suppose one-third of the increase since 1710		120,000
South Carolina.—Suppose in the same ratio to its present numbers as North Carolina		80,000
Georgia.—The settlement of it but then lately commenced : suppose it had		10,000
About 1750.—Total of inhabitants in the Thirteen Colonies.....		1,179,259
,, 1790.—Whole number in the Thirteen States		4,000,000

Being about $3\frac{4}{10}$ times the number of 1750. If this increase be computed in the manner of simple interest, it affords a ratio of 5.98, or very nearly 6 per cent., or in the manner of compound interest of between 3 and $3\frac{1}{2}$ per cent. Any number increased in the compound ratio of 3 per cent. per annum is doubled, in about twenty-three years and a half, and at $3\frac{1}{2}$ per cent. in about twenty years; that is, it is equal to 5 per cent. simple increase for the same period.

The next period which will be adverted to is the year 1774.

An able and ingenious author†, who was very thoroughly conversant in colonial affairs, supposes, that at that time, the whole number of colonists could not exceed 2,141,307. The difference between this number and that of 1750, gives a compound increase of hardly 3 per cent., while the subsequent ratio, up to 1790, is more than 4 per cent. per annum. These different rates of increase, while they confirm the general principles here contended for, may lead to a suspicion, that Governor Pownall's calculation is too low, or what perhaps is more probable, that the foregoing estimate for 1750 is somewhat too high.

In 1782 a return was made to Congress of the inhabitants in the several States, by which there appeared to be

	2,389,300
This return was then believed to be accurate, for it was made the rule for the assessment of public burthens among the States. But in 1784 the accuracy of it was attacked by Lord Sheffield, who affirmed it was too great; if it was in fact as much too great as he supposed, then the increase of numbers from that time to 1790 must have exceeded all credibility. But allowing it to have been accurate, the difference between the number of	
1790	4,000,000
And this number of 1782	2,389,300
Is.....	1,610,700
From this deduct for emigrants, viz.:—	
10,000 emigrants per annum for nine years.....	90,000
Increase of ditto at 5 per cent. for four years and one-half	20,250
	110,250
Natural increase in nine years	1,500,450

* Jefferson's Notes, p. 122.

† Pownall's Memorial, p. 62.

which calculated upon the number of inhabitants returned in 1782, gives the astonishing natural increase of 6·97, or very nearly 7 per cent. per annum.

From these statements compared with each other, it appears that in the year 1790, the actual increase of inhabitants in the United States, beyond the number ever imported, must have been 3,200,000, or after the most liberal allowances, at least three millions. That the whole rate of increase upon the numbers at any given period, has been more than 5 per cent., and deducting for emigrations, that it has been about equal to 5 per cent. for any twenty years successively, or $3\frac{1}{2}$ per cent. compound increase for any period that has yet elapsed.

But it may be objected, that no inference as to the future population of America can be derived from these facts, because as the country becomes more thickly settled, the increase will be slower. We have an opportunity of examining what weight the objection possesses.

The Eastern States are the most thickly inhabited. The greater part of the emigrations from them, have been either to other States in New England or to the State of New York.

In 1750, New England and New York together contained	444,000
In 1790, Ditto.....	1,348,942

having more than trebled their number in 40 years, and increased during all that period, at the rate of more than 5 per cent. upon their original number; and in the compound ratio of nearly 3 per cent. And as many more persons have emigrated from these States than have come into them from abroad, all this, *and something more*, is their natural increase.

In 1750 Massachusetts contained thirty-two persons, and in	
1790 about sixty persons to each square mile.	
In 1750 Connecticut contained twenty persons, and in	
1790 about fifty persons to the square mile.	
In 1750 Rhode Island contained about twenty-three, and in	
1790 about fifty-two inhabitants per square mile :	

so that besides the numerous emigrants these States have sent forth, they have more than doubled their numbers in forty years, and nearly trebled them since they contained twenty persons to each square mile.

Mr. Jefferson† has taken some pains to prove that the inhabitants of Virginia double their numbers once in twenty-seven years and a quarter. He also proves by an ingenious calculation‡, that in 1782, the numbers in Virginia were 567,614.

In 1790, the same country, (part of which made the State of Kentucky,) contained 821,287, giving an increase of $4\frac{9}{100}$, or very nearly 5 per cent., and doubling their numbers, not in twenty-seven years and a quarter, as Mr. Jefferson endeavoured to prove, but in less than twenty-one years.

Virginia, (exclusive of Kentucky,) added about 180,000 to its numbers, between 1782 and 1790, the period when the numerous emigrations to Kentucky caused so great a drain upon its population.

* Observations, &c., p. 139. † Jefferson's Notes, p. 123. ‡ Ib., p. 128.

In 1780*, the number of militia, west of the Blue Ridge, in Virginia, was 11,440, which, multiplied by four, gives for the number of inhabitants, 45,760.

In 1790, the same county contained 151,235, those counties having more than trebled their numbers in ten years.

It is to be observed that these facts (and many more of a similar tendency might be adduced), are drawn from the former and least prosperous state of America; and from periods, which were either absolutely those of public calamity, or at best, were not those of national prosperity: yet, it is apprehended, they sufficiently prove, that the inhabitants of the United States increase, at least, as fast, as at the compound ratio of $3\frac{1}{2}$ per cent.; that should foreigners cease to remove there, it would not prevent more than one-fifteenth or one-twentieth of this increase; and that there are, as yet, no symptoms of this rate of increase being at all diminished by the crowded population of the country. The United States must contain 18,000,000 of people to equal the average of New England, and 55,000,000 to equal the rate of population in Massachusetts and Connecticut.

The causes of this great increase of population, so peculiar to America, might be readily and satisfactorily explained, by a review of the state of manners, society, property, and government in that country.—The discussion would, however, be too long for the present sheet, and is therefore forborne.

Calculations of the present Number of Inhabitants in the United States.

At the end of the year 1790....	4,000,000	Brought forward	4,589,981
Increase 1 year at $3\frac{1}{2}$ per cent.	140,000	Increase 1 year at $3\frac{1}{2}$ per cent.	160,649
1791....	4,140,000	At the end of the year 1795....	4,750,630
Increase 1 year at $3\frac{1}{2}$ per cent.	144,900	Increase 1 year at $3\frac{1}{2}$ per cent.	166,172
1792....	4,284,900	1796....	4,916,802
Increase 1 year at $3\frac{1}{2}$ per cent.	149,971	Increase 1 year at $3\frac{1}{2}$ per cent.	172,088
1793....	4,434,871	1797....	5,088,890
Increase 1 year at $3\frac{1}{2}$ per cent.	155,110		
1794....	4,589,981		

Territory of the United States.

It appears from the statements in Sec. I, that the increase of the inhabitants of the United States, is in the compound ratio of about three and a half per cent., and that at the end of the year 1797, their number is about 5,088,890. The territory of the United States has been usually reckoned after Mr. Hutchins as equal to a tract of one thousand miles square. This computation, though probably too large, will be followed.

It gives in acres.....	640,000,600
From which deduct for water	51,000,000

And there remains of land	589,000,600
Of this quantity it is known that about	220,000,000

are contained in the territory north-west of the River Ohio, which is nearly all of it uninhabited. Of the 369,000,000

* Jefferson's Notes, p. 131.

Brought forward 369,000,000
 which remain, it is difficult to form any just estimate as to the proportion of the inhabited and appropriated parts, to those which are not so.

It is, however, thought reasonable to suppose that in America, whenever any part of the country has acquired a population of about twenty persons to the square mile, or 150 or 200 acres to a family, that then, the land must there have acquired nearly the average price of cultivated land, and the surplus population will incline to emigrate. Assuming this as a rule, the lands in the United States so occupied, would, in 1796, be 157,337,664

Remains 211,662,336
 a great part of which is, in fact, inhabited in some degree, the remainder is owned by States and individuals, and much of it not for sale. Add for the North West territory 220,000,000

Lands of all kinds yet to be settled 431,662,336

The increase of the population of the United States, calculated upon the principles established in Sec. I. will, if applied to the settlement of new lands at the rate of twenty persons to each square mile, or thirty-two acres each person, occupy the lands of the United States in the proportion, and at the periods following, viz,—

Year.	Number of Inhabitants.	Acres of Land Occupied by the Increase.	Acres of Land remaining Unoccupied.
1796	4,916,802	.....	431,662,336
1 Year's increase....	.....	5,506,816	.....
1797	5,088,890	.....	426,155,520
10 ditto .....	.....	66,863,712	.....
1807	7,178,381	.....	359,291,808
10 ditto .....	.....	94,317,856	.....
1817	10,125,814	.....	264,973,952
10 ditto .....	.....	133,044,704	.....
1827	14,283,461	.....	131,929,248
7 ditto .....	.....	131,929,248	.....
About 1834	18,406,150	.....	000,000,000

Value of Lands.

It has usually been supposed that the great rise which has taken place in the value of American lands, has been produced by caprice or accident, and not derived from any fixed and certain sources of profit: but it is allowed, that this rise in their value has been constant and very great ever since the first settlement of the colonies, and during periods which were very far from being those of public prosperity. Without taking any advantage, however, of the present favourable state of public affairs, it will be attempted to show, by facts and calculations drawn from the former and least prosperous state of the country, that the great increase in the value of lands is derived from fixed and necessary causes existing in the country, and is, in a great measure, subject to strict calculation.

The following calculation is founded upon these principles, viz,—

1st. It is supposed to be proved in Sec. I., that the inhabitants of

the United States increase in the compound ratio of three and a half per cent.

2nd. It appears from the same section, that at the end of the year 1796, the number of inhabitants in the United States is about 4,916,802.

3rd. It appears from the statements in Sec. II., that the quantity of vacant lands in the United States is about 431,662,336 acres.

4th. Of consequence there are in the United States 1139 persons to each 100,000 acres of new lands.

5th. It is supposed that new lands on an average are worth one dollar per acre; and that lands inhabited at the rate of twenty persons to the square mile are worth fourteen dollars, or three guineas per acre.

The following statement, therefore, shews the increasing value of any 100,000,000 acres, (taken equal to the average,) upon the principle that the increase of 1139 persons may be applied to the settlement of it, and that as much land as they settle, at the rate of twenty persons to the square mile, is worth fourteen dollars per acre. (See Table, p. 140.)

It is not intended by this statement to convey the idea that the rise in the value of any particular tract of land will be in the exact proportion here mentioned. In many important instances in America it has been greater, in others, perhaps, less.

But it is intended to show that the increase in the value of American lands is, in its nature, like that of *compound interest*; and that assuming the very moderate ratio of three and a half per cent. for the increase of inhabitants, the general rise in the value of property resulting therefrom is very far above the profit of capital in any of the ordinary ways of employing it. And it is to be remembered that these statements, being matters of arithmetical calculation, are not to be disproved, except by disproving some of the premises on which they are founded.

It ought also to be remarked that the statement is burthened by the inclusion of all the lands in the United States, and of course, of many millions which are not now for sale, and will not begin to be settled for many years. It is, therefore, much too moderate, if considered with respect to the lands now in market.

The lowest price at which Congress sell the lands, they offer for sale at two dollars per acre.

The astonishingly low prices of lands in America have hitherto been occasioned by the want of capital to invest in them. Only a few European capitalists have lately understood the subject: and nobody is ignorant of the immense advantages they have derived from it. The great increase of capital in America, together with the investments which Europeans are beginning to make in lands, will probably raise their value far above the rate at which it has increased at any former period.

Such a conclusion results, not unnaturally, from another consideration, which is this:—The price of any commodity whatever, may be raised in two ways, either by diminishing the quantity for sale, or by increasing the demand. But the extension of settlements, and the increase of wealth and population, operate at once in both these

ways upon American lands; not only diminishing the quantity for sale, but increasing the means and the eligibility of making further purchases and settlements.

Year.	Number of Inhabitants.	Lands Ann. Occupied by the Increase of Inhabitants.	Value of 100,000 Acres each Year.	Value per Acre.	The same in Sterling.
		Acres.	Dollars.	Dols. Cts.	£ s. d.
End of 1796	1,139	.....	100,000	1 00	0 4 6
Increase	40	1,280	16,640		
1797	1,179	.....	116,640	1 16	0 5 2½
Increase	41	1,312	17,056		
1798	1,220	.....	133,696	1 33	0 5 11⅓
Increase	42	1,344	17,472		
1799	1,262	.....	151,168	1 51	0 6 9½
Increase	44	1,408	18,304		
1800	1,306	.....	169,472	1 69	0 7 4½
Increase	46	1,472	19,136		
1801	1,352	.....	188,608	1 88	0 8 5½
Increase	47	1,504	19,552		
1802	1,399	.....	208,160	2 08	0 9 4¼
Increase	49	1,568	20,384		
1803	1,448	.....	228,544	2 28	0 10 3
Increase	51	1,631	21,216		
1804	1,499	.....	249,760	2 49	0 11 2½
Increase	52	1,664	21,632		
1805	1,551	.....	271,392	2 71	0 12 2¼
Increase	54	1,728	22,464		
1806	1,605	.....	293,856	2 93	0 13 2¼
Increase	56	1,792	23,296		
1807	1,661	.....	317,152	3 17	0 14 3
1808	1,719	1,856	341,280	3 41	0 15 4
1809	1,779	1,920	366,240	3 66	0 16 5½
1810	1,841	1,984	392,030	3 92	0 17 7½
1815	2,186	11,040	535,550	5 33	1 4 0
1820	2,596	13,120	706,110	7 06	1 11 9
1825	3,083	15,584	908,702	9 08	2 0 8¼
1830	3,661	18,784	1,152,894	11 52	2 12 10
1834	4,255	19,008	1,400,000	14 0	3 3 0

Thus far Dr. Currie's calculations extend. The following are observed facts.

*Population of the United States, according to the six enumerations;
from the Official Revision.*

STATES.	1790.	1800.	1810.	1820.	1830.	1840.
Maine	96,540	151,719	228,705	298,335	399,955	501,793
New Hampshire	141,899	183,762	214,360	244,161	269,328	284,574
Vermont	85,416	154,465	717,713	235,764	280,652	291,948
Massachusetts	378,717	423,245	472,040	523,287	610,408	737,699
Rhode Island	69,110	69,122	77,031	83,059	97,199	108,830
Connecticut	238,141	251,002	262,042	275,202	297,665	309,978
New York	340,120	586,756	959,949	1,372,812	1,918,668	2,428,921
New Jersey	184,139	211,949	249,555	277,575	320,823	373,306
Pennsylvania	434,373	602,365	810,091	1,049,458	1,348,233	1,724,033
Delaware	59,098	64,273	72,674	72,749	76,748	78,085
Maryland	319,728	341,548	380,546	407,350	447,040	470,019
Virginia	748,308	880,200	974,622	1,065,379	1,211,405	1,239,797
North Carolina	393,751	478,163	555,500	638,829	737,987	753,419
South Carolina	249,073	345,591	415,115	502,741	581,185	594,398
Georgia	82,548	162,101	252,433	340,987	516,823	691,392
Alabama .....	....	....	20,845	127,901	309,527	590,756
Mississippi .....	....	8,850	40,352	75,448	136,621	375,651
Louisiana .....	....	....	76,556	153,407	215,739	352,411
Arkansas .....	....	....	....	14,273	30,388	97,574
Tennessee	30,791	105,602	261,727	422,813	681,904	829,210
Kentucky	73,077	220,955	406,511	564,317	687,917	779,828
Ohio .....	....	45,365	230,760	581,434	937,903	1,519,467
Michigan .....	....	....	4,762	8,896	31,639	212,267
Indiana .....	....	4,875	24,520	147,178	343,031	685,866
Illinois .....	....	....	12,282	55,211	157,455	476,183
Missouri .....	....	....	20,845	66,586	140,445	383,702
Dist. Columbia .....	....	14,093	24,023	33,039	39,834	43,712
Florida .....	....	....	....	....	34,730	54,477
Wisconsin .....	....	....	....	....	....	30,945
Iowa .....	....	....	....	....	....	43,112
Total	3,929,827	5,305,925	7,239,814	9,638,131	12,866,920	17,063,353

*Rates per Cent. of Increase and Decrease of the White, Free Coloured, and Slave Population,
in the New England, Middle, Southern, and Western States.*

	From 1796 to 1800.				From 1800 to 1810.				From 1810 to 1820.				From 1820 to 1830.				From 1830 to 1840.			
	White.	Coloured.	Slaves.	Total.	White.	Coloured.	Slaves.	Total.	White.	Coloured.	Slaves.	Total.	White.	Coloured.	Slaves.	Total.	White.	Coloured.	Slaves.	Total.
N. E. States	22.3	31.6	-65	12.1	19.5	12.5	-61	19.3	12.8	6.5	-65	12.7	17.9	2.7	-67	11.1	14.4	6.1	-52	14
Middle	45.3	110	-10.4	43.9	43.3	83	-24	43.1	34	23.4	-27.4	32.8	32.7	37.7	-73	31.9	6.3	16.1	-44.4	25
South	22.0	85	+25.8	24.3	15.5	76	+29.4	21.9	21.2	26	+25.6	23	24.6	35.2	+28.3	26.4	22.1	17.7	+22.4	22
West	244	226	+25.1	246	157	329	+137	155	97.1	87.2	+71	93	62.6	102.3	+53	61	72.6	74.4	+31.6	68

Population in 1840.

STATES.	White.	Free coloured.	Free.	Slave.	Number of Free to 1 Slave.	Total.
1. New York	2,378,890	50,027	2,428,917	4	607,229	2,428,921
2. Pennsylvania	1,676,115	47,854	1,723,969	64	26,937	1,724,033
3. Ohio	1,502,122	17,342	1,519,464	3	506,488	1,519,467
4. Virginia	740,698	49,842	790,810	448,987	1·76	1,239,797
5. Tennessee	610,627	5,524	616,151	183,059	3·52	829,210
6. Kentucky	590,253	7,317	597,570	182,258	3·27	779,828
7. North Carolina	484,870	22,732	507,602	245,817	2·06	753,419
8. Massachusetts	729,030	8,669	737,699	....	....	737,699
9. Georgia	407,695	2,753	410,448	280,944	1·46	691,392
10. Indiana	678,702	7,165	685,863	3	228,621	685,866
11. South Carolina	259,084	8,276	267,360	327,038	·81	594,398
12. Alabama	335,185	2,039	337,224	253,532	1·33	590,756
13. Maine	500,438	1,355	501,793	....	....	501,793
14. Illinois	472,254	3,598	475,852	331	1,437	476,183
15. Maryland	318,204	62,078	380,282	89,737	4·23	470,019
16. Missouri	323,888	1,574	325,462	58,240	5·58	383,702
17. Mississippi	179,074	1,366	180,440	195,211	·92	375,651
18. New Jersey	351,588	21,044	372,632	674	552·	373,306
19. Louisiana	158,457	25,502	183,959	168,452	1·09	352,411
20. Connecticut	361,856	8,105	369,961	17	18·233	369,978
21. Vermont	291,218	730	291,948	....	....	291,948
22. New Hampshire	284,036	537	284,573	1	....	284,574
23. Michigan	211,560	707	212,267	....	....	212,267
24. Rhode Island	105,587	3,238	108,825	5	21,765	108,830
25. Arkansas	77,174	465	77,639	19,935	3·89	97,574
26. Delaware	58,561	16,919	75,480	2,605	28·	78,085
Florida	27,943	817	28,760	25,717	1·11	54,477
Dis. of Columbia	30,657	8,361	39,018	4,694	8·31	43,712
Iowa	42,924	172	43,096	16	2,693	43,112
Wisconsin	30,749	185	30,934	11	2,812	30,945
	14,189,705	386,293	14,575,998	2,487,355	5·86	17,063,353
			U. S. Navy ....	....	....	6,100
						17,069,453

Remarks on the Agricultural Statistics.*

THE tabular view (p. 144) has been prepared from the Census Statistics taken in 1840, upon the agricultural products of the year 1839 as the basis. These have been carefully compared and estimated by a laborious examination, and condensing of a great number of agricultural papers, reports, &c., throughout the Union, together with such other information as could be obtained by recourse to individuals from every section of the country. It is believed to be as correct as with the present data can be reached. The estimates are doubtless more closely accurate with regard to some portions of the country than others. The

* [Extracted from the Report of the Commissioners of Patents, accompanying the Table (p. 144), made to Congress, February 7th, 1842.]

Rates of Increase and Decrease of the Free White, Free Coloured, and Slave Population of the several States.

FROM 1790 TO 1800.

States.	FREE.		Slave.	Total.
	White.	Coloured.		
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
1. Kentucky	194	550	+ 241	202
2. Georgia	92	156	+ 106	96
3. Vermont	80	118	....	80
4. New York.....	77	122	- 4·6	72
5. South Carolina...	40	76	+ 36·4	38·7
6. Pennsylvania	38·1	122	- 54	38·6
7. New Hampshire	29·6	35·8	- 94	29·5
8. North Carolina	17·1	41·5	+ 32·5	21·3
9. *Massachusetts....	20·9	21·1	....	20·8
10. Virginia	16·3	57	+ 17·8	17·6
11. New Jersey	14·8	59	+ 8·7	15·1
12. Delaware	7·6	112	- 30·7	8·7
13. Maryland	3·6	143	- 2·5	6·8
14. Connecticut	5·2	90	- 65·0	5·4
15. Rhode Island.....	1·1	- 4·7	- 59	....
Total	35·6	82·	+ 27·9	35·
* {Massachusetts.....	11·6	18·1		11·7
{Maine	56	52·		57·1

* denotes increase, — denotes decrease of Slave Population.

numerous agricultural societies in some of the States, with the reports and journals devoted to this branch of industry, afford a means of forming such an estimate as is not to be found in others. Papers of this description, giving a continued record of the crops, improvements in seeds, and means of culture, and direction of labour, are more to be relied on in this matter than the mere political or commercial journals, as they cannot be suspected like these latter, of any design of forestalling or otherwise influencing the market, by their weekly and monthly report of the crops. Portions too of the Census Statistics have probably been more accurately taken than others. In assuming them as the basis, reference must also be had to the annual increase of our population, equal to from 300,000 to 400,000, and in some of the States reaching as high as 10 per cent., as estimated by the 10 years preceding the year 1840, and also to the diversion of labour from the works of internal improvement carried on by the States, in consequence of which the consumer has become the producer of agricultural products, the prices of articles raised, &c.

The crops of 1839, on which the Census Statistics are founded, were, as appears from the notices of that year, very abundant in relation to nearly every product throughout the whole country, indeed unusually so compared with the years preceding. Tobacco may be

Agricultural Statistics. Estimated for 1841.

STATES, &c.	Population according to the Census of 1840.	Population in 1841, estimated on the annual average increase for 10 years.	Number of bushels of Wheat.	Number of bushels of Barley.	Number of bushels of Oats.
Maine	501,973	522,059	987,412	360,267	1,119,425
New Hampshire	284,574	286,622	426,816	125,964	1,312,127
Massachusetts	737,699	762,257	189,571	157,903	1,276,491
Rhode Island	108,830	111,156	3,407	69,139	188,668
Connecticut	309,978	312,440	95,090	31,594	1,431,454
Vermont	291,948	293,906	512,461	55,243	2,601,425
New York.....	2,428,921	2,531,003	12,309,041	2,301,041	21,896,205
New Jersey	373,306	383,802	919,043	13,609	3,745,061
Pennsylvania	1,724,033	1,799,193	12,872,219	203,858	20,872,591
Delaware	78,085	78,351	317,105	5,119	937,105
Maryland	470,019	474,613	3,747,652	3,773	2,827,365
Virginia	1,239,797	1,245,475	10,010,165	83,025	12,962,108
North Carolina....	753,419	756,505	2,183,026	4,208	3,832,729
South Carolina....	594,398	597,040	963,162	3,794	1,374,562
Georgia.....	691,392	716,506	1,991,162	12,897	1,525,623
Alabama	590,756	616,906	869,554	7,941	1,476,670
Mississippi	375,651	443,457	305,091	1,784	697,235
Louisiana	352,411	379,967	67	....	109,425
Tennessee.....	829,210	858,670	4,873,584	5,197	7,457,818
Kentucky	779,828	798,210	4,096,113	16,860	6,825,974
Ohio.....	1,519,467	1,647,779	17,979,647	245,905	15,995,112
Indiana.....	685,866	754,232	5,282,864	33,618	6,606,086
Illinois	476,183	584,917	4,026,187	102,926	6,964,410
Missouri	383,702	432,350	1,110,542	11,515	2,580,641
Arkansas	97,574	111,010	2,132,030	950	236,941
Michigan	212,267	248,331	2,896,721	151,263	2,915,102
Florida T.....	54,477	58,425	624	50	13,561
Wisconsin T.	30,945	37,133	297,541	14,529	511,527
Iowa T.....	43,112	51,834	234,115	1,342	301,498
D. of Columbia....	43,712	46,978	10,105	317	12,694
Total.....	17,069,453	17,835,217	91,642,957	5,024,731	130,607,623

considered as an exception: it is described to have been generally a short crop.

The crops of the succeeding year are likewise characterised as abundant. The success which had attended industry in 1839 stimulated many to enter upon a larger cultivation of the various articles produced, while the stagnation of other branches of business drew to the same pursuit a new addition to the labouring force of the population.

Similar causes operated also to a considerable extent the past year. In 1841 the season may be said to have been less favourable in many respects than in the two preceding ones, but the increase of the labouring force, and the amount of soil cultivated, render the aggregate somewhat larger. Had the season been equally favourable, we might probably have rated the increase considerably higher, as the annual average increase of the grains, with potatoes, according to the annual

Agricultural Statistics—continued.

STATES, &c.	Number of bushels of Rye.	Number of bushels of Buck Wheat.	Number of bushels of Indian Corn.	Number of bushels of Potatoes.	Number of tons of Hay.	Number of tons of Flax and Hemp.
Maine.....	143,458	53,020	988,549	10,912,821	713,285	40
New Hampshire	317,418	106,301	191,275	6,573,405	505,217	28
Massachusetts	509,205	91,273	1,905,273	4,947,805	617,663	9
Rhode Island....	37,973	3,276	471,022	1,003,170	69,881	$\frac{1}{2}$
Connecticut	805,222	334,008	1,521,191	3,002,142	497,204	45
Vermont	241,061	231,122	1,167,219	9,112,008	924,379	31
New York	2,723,241	2,325,911	11,441,256	30,617,009	3,472,118	1,508
New Jersey	1,908,981	1,007,340	5,134,366	2,486,482	401,833	2,197
Pennsylvania ...	6,942,643	2,485,132	14,969,472	9,747,343	2,004,162	2,987
Delaware	35,162	13,127	2,164,507	213,090	25,007	54
Maryland	671,420	80,966	6,998,124	827,363	87,351	507
Virginia	1,317,574	297,109	33,987,255	2,889,265	367,602	26,141
North Carolina	256,765	18,469	24,116,253	3,131,086	111,571	10,705
South Carolina	49,064	85	14,987,474	2,713,425	25,729	
Georgia	64,723	542	21,749,227	1,644,235	17,507	13
Alabama	55,558	60	21,594,354	1,793,773	15,353	7
Mississippi	11,978	69	5,985,724	1,705,461	604	21
Louisiana	1,897	....	6,224,147	872,563	26,711	
Tennessee	322,579	19,145	46,285,359	2,018,632	33,106	3,724
Kentucky	1,652,108	9,669	40,787,120	1,279,519	90,360	8,827
Ohio	854,191	666,541	35,452,161	6,004,183	1,112,651	9,584
Indiana	162,026	56,371	33,195,108	1,830,952	1,213,634	9,110
Illinois	114,656	69,549	23,424,474	2,633,156	214,411	2,143
Missouri.....	72,144	17,135	19,725,146	815,259	57,204	20,547
Arkansas	7,772	110	6,039,450	367,010	695	1,545
Michigan	42,306	127,504	3,058,290	2,911,507	141,525	944
Florida T.	320	....	694,205	271,105	1,915	2 $\frac{1}{4}$
Wisconsin T....	2,342	13,525	521,244	454,819	35,603	3
Iowa T.	4,675	7,873	1,547,215	261,306	19,745	459
D. of Columbia	5,009	312	43,725	43,725	1,449	
Total	19,333,474	7,953,544	387,380,185	113,183,619	12,804,705	101,181 $\frac{3}{4}$

increase of our population, is about thirty millions of bushels. Portions of the country suffered much from a long drought during the last summer, which affected unfavourably the crops more particularly liable to feel its influence, especially grain, corn, and potatoes. In other parts, also, various changes of the weather in the summer and autumn lessened the amount of their staple products below what might have been gathered had the season proved favourable. Still there has been no decisive failure on the whole, in any State, so as to render importation necessary, without the means of payment in some equivalent domestic products, as has been the case in some former years, when large importations were made to supply the deficiency, at cash prices. In the year 1837 not less than 3,921,259 bushels of wheat were imported into the United States. We have now a large surplus of this and other agricultural products for exportation, were a market open to receive them.

Wheat.—This is one of the great staple products of several States,

Agricultural Statistics—continued.

STATES, &c.	Number of pounds of Tobacco gathered.	Number of pounds of Cotton.	Number of pounds of Rice.	Number of pounds of Silk Cocoons.	Number of pounds of Sugar.	Number of gallons of Wine.
Maine	75	....	....	527	263,592	2,349
New Hampshire	264	....	....	692	169,519	104
Massachusetts	87,955	....	....	200,000	496,341	207
Rhode Island	454	....	....	745	55	801
Connecticut	547,694	....	....	93,611	56,372	1,924
Vermont	710	....	....	5,684	5,119,264	109
New York	984	....	....	3,425	11,102,070	5,162
New Jersey	2,566	....	....	3,116	67	9,311
Pennsylvania	415,908	....	....	17,324	2,894,016	16,115
Delaware	365	352	....	2,963	....	296
Maryland	26,152,810	5,484	....	5,677	39,892	7,763
Virginia	79,450,192	2,402,117	3,084	5,341	1,557,206	13,504
North Carolina	20,026,830	34,437,581	3,324,132	4,929	8,924	31,572
South Carolina	69,524	43,927,171	66,897,244	4,792	31,461	671
Georgia	175,411	116,514,211	13,417,209	5,185	357,611	8,117
Alabama	286,976	84,854,118	156,469	4,902	10,650	354
Mississippi	155,307	148,504,395	861,711	158	127	17
Louisiana	129,517	112,511,263	3,765,541	881	88,189,315	2,911
Tennessee	35,168,040	20,872,433	8,455	5,724	275,557	692
Kentucky	56,678,674	607,456	16,848	3,405	1,409,172	2,261
Ohio	6,486,164	....	....	6,278	7,109,423	11,122
Indiana	2,375,365	165	....	495	3,914,184	10,778
Illinois	863,623	196,231	598	2,345	415,716	616
Missouri	10,749,454	132,109	65	169	327,165	27
Arkansas	185,548	7,038,186	5,987	171	2,147	....
Michigan	2,249	....	....	984	1,894,372	....
Florida T.	74,963	6,009,201	495,625	376	269,146	....
Wisconsin T.	311	....	....	25	147,816	....
Iowa T.	9,616	....	....	....	51,425	....
D. of Columbia	59,578	....	....	916	....	32
Total	240,187,118	578,008,473	88,952,968	379,272	126,164,644	125,715

the soil of which seems, by a happy combination, to be peculiarly fitted for its culture; silicious earth, as well as lime, appears to form a requisite of the soil to adapt it for raising wheat to the greatest advantage, and the want of this has been suggested as a reason for its not proving so successful of cultivation in some portions of our country. Of the great wheat growing States, during the past year, it may be remarked that in New York, Pennsylvania, Virginia, and the Southern States, this crop seems not to have repaid so increased a harvest as was promised early in the season. Large quantities of seed were sown, and the expectation was deemed warranted of an unusually abundant increase. But the appearance of the chinch bug and other causes destroyed these hopes. In the northern part of Kentucky, the crop "did not exceed one-third of an ordinary one." In some of the States, as in New Jersey, Ohio, Indiana, Michigan, and Illinois, the quantity raised was large, and the grain of a fine quality. In some of the States a bounty is paid on the raising of wheat, which has

operated as an inducement to the cultivation of this crop. The amount thus paid out of the State Treasury in Massachusetts, for two years, was more than 18,000 dollars; the bounty was two dollars for every fifteen bushels, and five cents for every bushel above this quantity. Similar inducements might, no doubt, stimulate to still greater improvements and success in this, and other products of the soil.

The value of this crop in our country, is so universally felt that its importance will be at once acknowledged. The whole aggregate amount of wheat raised is 91,642,957 bushels, which is nearly equal to that of Great Britain, the wheat crop of which does not annually exceed 100,000,000 of bushels. The supply demanded at home as an article of food cannot be less than eight or ten millions, and has been estimated as high as twelve millions of barrels of flour, equal to about forty to sixty bushels of wheat. The number of flouring mills reported by the last census is 4,364, and the number of barrels of flour 7,404,562. Large quantities of wheat also are used for seed, and for food of the domestic animals, as well as for the purposes of manufacture. The allowance in Great Britain for seed in the grains in general, as appears from M'Culloch, is about one-seventh of the whole amount raised. Probably a much less proportion may be admitted in this country. Wheat is also used in the production of, and as a substitute for, starch. The cotton manufactories of this country are said to consume annually 100,000 barrels of flour for this and similar purposes, and in Lowell alone, 800,000 pounds of starch and 3,000 barrels of flour, are said to be used in conducting the mills, bleachery, and prints, &c., in the manufactories.

Maize, or Indian Corn.—Tennessee, Kentucky, Ohio, Virginia, and Indiana, are in their order the greatest producers of this kind of crop. In Illinois, North Carolina, Georgia, Alabama, Missouri, Pennsylvania, South Carolina, New York, Maryland, Arkansas, and the New England States, it appears to be a very favourite crop. In New England especially, the aggregate is greater than in any of the grains, except oats. More diversity seems to have existed in this crop, in different parts of the country, the past year, than with most of the other products of the soil; and hence it is much more difficult to form a satisfactory general estimate. On the whole, however, from the best estimate which can be made, it is believed to have equalled, if it did not exceed, an average crop. The improvement continually making in the quality of the seed, (and this remark is likewise applicable, in various degrees, to other products,) augurs well for the productiveness of this indigenous crop, as it has been found that new varieties are susceptible of being used to great advantage. Considered as an article of food for man, and also for the domestic animals, it takes a high rank. No inconsiderable quantities have likewise been consumed in distillation; and the article of kiln-dried meal, for exportation, is yet destined, it is believed, to be of no small account to the corn growing sections of our country. It will command a good price and find a ready market in the ports which are open to its reception. But the importance of this crop will doubtless soon be felt in the new application of it to the manufacture of sugar from the stalk, and of oil from the meal.

Potatoes.—The tabular view shows, that in quite a number of States the amount of Potatoes raised is very great. New York, Maine, Pennsylvania, Vermont, New Hampshire, Ohio, Massachusetts, and Connecticut, are the greatest potato-growing States; more than two-thirds of the whole crop are raised by these States. Two kinds, the common Irish, and the sweet potato, as they are called, with the numerous varieties, are embraced in our Agricultural Statistics. When it is recollected, that this product of our soil forms a principal article of vegetable food among so large a class of our population, its value will at once be seen. The best common, or Irish potatoes, as an article of food for the table, are produced in the higher northern latitudes of our country, at they seem to require a colder and moister soil than corn, and the grains, generally. It is on their peculiar adaptation, in this respect, that Ireland, Nova Scotia, and parts of Canada, are so peculiarly successful in the raising and perfecting of the common or Irish potatoes. It is estimated that in Great Britain, an acre of potatoes will feed more than double the number of individuals that can be fed from an acre of wheat. It is also asserted, that whenever the labouring class is mainly dependant on potatoes, wages will be reduced to a minimum. If this be true, the advantage of our labouring classes over those of Great Britain, in this respect is very great. The failure of a crop of potatoes, too, where it is so much the main dependance, must produce great distress and starvation. Such is now the case in Ireland, and parts of England and Scotland. Another disadvantage of relying on this crop as a chief article of food for the people is, that it does not admit of being stored up as it is, or converted into some other form for future years, as do wheat and corn. Potatoes also enter largely into the supply of food for the domestic animals; beside which, considerable quantities are used for the purpose of the manufacture of starch, molasses, and distillation. New varieties, which have been introduced within a few years past, have excited much attention, and many of them have been found to answer a good purpose. Increased improvement, and with yet more successful results in this respect, may be anticipated.

Tobacco.—The crop of 1839 in this article, on which the Census Statistics are founded, is deemed, as appears from the notices on this subject, to have been a short one, and below the average. The crop of the past year was much more favourable, beyond an average, indeed it is described in some of the Journals, as “large.”

Virginia, Kentucky, Tennessee, North Carolina, and Maryland, are the great tobacco growing States. An advance in this product is likewise in steady progress in Missouri, where the crop of 1841 is estimated at nearly 12,000 hogsheads, and for 1842, it is expected that as many as 20,000 may be raised. Some singular changes are going forward, with regard to this great staple of several of the States. Reference is here intended to the increasing disposition evinced, as well as the success thus far attending the effort to cultivate Tobacco in some of the Northern and North-western States. The tobacco produced in Illinois has been pronounced by competent judges from the tobacco growing States, and who have been engaged in the culture of this article, to be superior, both in quality and the amount produced per acre, to what is the average yield of the soils heretofore deemed best adapted to

this purpose. In Connecticut also, the attention devoted to it has been rewarded with much success; 100,000 pounds are noticed as the product of a single farm of not more than fifty acres. It is indeed affirmed that Tobacco can be raised in Indiana, Ohio, Kentucky, and Tennessee, at a larger profit than even wheat or Indian Corn. Considerable quantities also were raised in 1841 in Pennsylvania and Massachusetts, where it may probably become an object of increased attention. The agriculturists of these States, if they engage in the production of this crop will do so with some peculiar advantages; they are accustomed to vary their crops, and to provide means for enriching their soils. Tobacco, it is well-known, is an exhausting crop, especially so, when it is raised successive years on the same portions of soil. The extraordinary crops of tobacco, which have heretofore been obtained, have indeed enriched the former proprietors, but the present generation now find themselves, in too many instances, in the possession of vast fields once fertile, that are now almost, or wholly, barren, from an inattention to the rotation of crops.

Cotton.—This, it is well-known, is the great staple product of several States, as well as the great article of our exports, the price of which in the foreign market has been more relied on, than anything else, to influence favourably the exchanges of this country with Great Britain and Europe generally. The cotton crop of the United States is more than one-half of the crop of the whole world. In 1834 the amount was but about 450,000,000 of pounds, the annual average may now be estimated at 100,000,000 of pounds more, the value of it for export at about 62,000,000 dollars. The rise and progress of this crop, since the invention of Whitney's cotton-gin, has been unexampled in the history of agricultural products. In the year 1783 eight bales of cotton were seized on board of an American brig at the Liverpool Custom House, because it was not believed that so much Cotton could have been sent at one time from the United States. The cotton crop of 1841, compared with that of 1839 and 1840, was probably less, by from 500,000 to 600,000 bales. In the early part of the last cotton-growing season, an average crop was confidently anticipated; but this hopeful prospect was not realized. In portions of the cotton producing States, as in parts of Georgia, however, the crop was greater than usual, and in Arkansas it has been estimated at a gain over that of 1839 of $33\frac{1}{2}$ per cent.; but probably, owing to its having suffered from the boll-worm, it should be set down at 20 or 25 per cent. A similar advance is expected in future years, among other causes, from the great increase of population by immigration. Mississippi, Georgia, Louisiana, and Alabama, South Carolina, and North Carolina, are, in their order, the great cotton-growing States. An important fact deserves notice here, on account of the relation which the cotton crop bears to other crops. Whenever (to whatever cause it may be owing) the price of cotton is low, the attention of cultivators, the next year, is more particularly diverted from cotton to the culture of corn, and other branches of agriculture in the cotton-producing States. As cotton is now so low, and so little in demand in the foreign market, unless a market be created at home, it must necessarily become an object of less attention to the planters; and it cannot be expected that the agricultural products of the West will find so ready a sale in the Southern market

as in some former years. Other countries too, as India, Egypt, and other parts of Africa, Brazil, and Texas, are now coming more decidedly into competition with the cotton-growing interest of our country; so that an increase of this product from those countries and a corresponding depression in ours, are to be expected.

Silk Cocoons.—Notwithstanding the disappointment of many who, since the year 1839, engaged in the culture of the *morus multicaulis* and other varieties of the mulberry, and the raising of silkworms, there has been on the whole a steady increase in the attention devoted to this branch of industry. This may be in part attributed to the ease of cultivation, both as to time and labour required, and in no small degree also to the fact, that in twelve of the States a special bounty is paid for the production of cocoons, or of the raw silk. Several of these promise much hereafter in this product, if a reliance can be placed on the estimates given in the various journals more particularly devoted to the production of silk. There seems at least no ground for abandoning the enterprise so successfully begun, of aiming to supply our home consumption of this important article of our imports. In Massachusetts, Connecticut, New York, Pennsylvania, Delaware, Tennessee, and Ohio, there has been quite an increase above the amount of 1839. The quantity of raw silk manufactured in this country the past year is estimated at more than 30,000 pounds. The machinery possessed for reeling, spinning, and weaving silk in the production of ribands, vestings, damask, &c., admit of its being carried to great perfection, as may be seen by the beautiful specimens of various kinds deposited in the National Gallery at the Patent Office. The amount of silk stuffs brought into this country in some single years from foreign countries is estimated at more in value than 20,000,000 dollars. The silk manufactured in France, in 1840, amounted to 25,000,000 dollars; that of Prussia to more than 4,500,000 dollars. Should one person in a hundred of the population of the United States produce annually 100 pounds of silk, the quantity would be nearly 18,000,000 pounds, which at 5 dollars per pound (and much of it might command a higher price) would amount to nearly 90,000,000 dollars, nearly 30,000,000 dollars above our whole cotton exports, nine times the value of our tobacco exports, and nearly five or six times the average value of our imports of silk. That such a productiveness is not incredible as at first sight it may seem, may be evident from the fact that the Lombard Venetian kingdom, of a little more than 4,000,000 of population, exported in one year 6,132,950 pounds of raw silk, which is a larger estimate by at least one-half for each producer, than the supposition just made as to our own country. Another fact too shows both the feasibility and the importance of the cultivation of this product. The climate of our country from its southern border even up to 44 degrees of north latitude is suited to the culture of silk.

Sugar.—Louisiana is the greatest sugar district of our country. The crop of 1841 appears to have been injured by the early frosts; the amount therefore was not so great as that of 1839, by nearly one-third.

The progress of the sugar manufacture, and the gain upon our imports, has been rapid. In 1839, the import of sugars was 195,231,273

pounds, at an expense of at least 10,000,000 dollars; in 1840, about 120,000,000 pounds, at an expense of more than 6,000,000 dollars. A portion of this was undoubtedly exported, but most of it remained for home consumption. More than 30,000,000 pounds of sugar also, from the maple and the beet-root, were produced in 1841, in the Northern, Middle, and Western States; and should the production of corn-stalk sugar succeed, as it now promises to do, this article must contribute greatly to lessen the amount of imported sugars. Indeed such has been the manufacture of the sugar from the cane, for the last five years, that were it to advance in the same ratio for the five to come, it would be unnecessary to import any more sugar for our home consumption.

The whole of the summary now given, with the rapid glance taken at the various products, presents our country as one richly favoured of Heaven in climate and soil, and abounding in agricultural wealth. Probably no country can be found on the face of the globe, exhibiting a more desirable variety of the products of the soil, contributing to the sustenance and comfort of its inhabitants. The whole aggregate of the bread stuffs, corn and potatoes, is 624,518,510 bushels; which, estimating our present population at 17,835,217, is about $35\frac{2}{3}$ bushels for each inhabitant; and allowing 10 bushels to each person—man, woman, and child, (which is double the usual annual allowance as estimated in Europe,) and we have a surplus product for seed, food of stock, the purposes of manufacture, and exportation, of not less than 446,166,340 bushels; from which, if we deduct one-tenth of the whole amount of the crops for seed, it leaves for food of stock, for manufactures, and exportation, a surplus of at least 370,653,627 bushels. Including oats, the aggregate amount of the crops of grain, corn, and potatoes, is equal to nearly 755,200,000 bushels, or $42\frac{1}{3}$ bushels to each inhabitant.

In a subsequent report of the Commissioner of Patents, presented to Congress 29th January, 1845, the estimate of crops for 1844 is given as follows, the estimated population being 19,552,196:—

Wheat	95,607,000 bushels	Hay.....	17,715,000 tons
Barley	3,627,000 „	Flax and Hemp ...	22,800 „
Oats	172,247,000 „	Tobacco	151,705,000 pounds
Rye	26,450,000 „	Cotton	872,107,000 „
Buckwheat	9,071,000 „	Rice	111,759,000 „
Indian Corn	421,953,000 „	Silk Cocoons	396,790 „
Potatoes	99,493,000 „	Sugar	201,107,000 „

Mr. Tucker, Professor of Moral Philosophy and Political Economy in the University of Virginia, has given in his work, “The Progress of the United States in Population and Wealth in 50 Years,” a summary of the yearly value (in 1840) of products of industry in the United States, as follows:—

Agriculture	654,387,597 dollars
Manufactures	239,836,221 „
Commerce	97,721,086 „
Mining	42,358,761 „
Forest	16,835,060 „
Fisheries	11,996,008 „

Total 1,063,131,736 dollars, or £221,186,403 stg.

The Prevalence and alleged Increase of Scrofula. BY BENJAMIN PHILLIPS, Esq., F.R.S.

[Read before the Statistical Society of London, May 18, 1846.]

THE paper which I have the honour to read to you this evening, is founded upon returns which are already before the public in my work on Scrofula*. It seemed to me, therefore, doubtful whether the Society would be content, under those circumstances, to receive the communication at all. I am told, however, that the Council are desirous to foster inquiries into Vital Statistics, and that no difficulties would be put in the way of the reception of the present contribution, which relates to an important item in the mortality tables of this country.

I have carefully stripped the paper of all medical technicalities, and I have greatly condensed the returns upon which the opinions I have expressed are founded, so as to make it as nearly as possible a contribution to purely Vital Statistics.

The object I have sought to accomplish, is to ascertain how far Scrofula may be said to be a prevalent disease in this country—and how far the current idea is correct, that it belongs to a class of diseases, which the crowding and bad air of towns are rendering more frequent at present than they were formerly.

The belief that Scrofula and Consumption are peculiarly prevalent in this country, and that with the exception of Holland, no European country furnishes so many victims to them, has been so generally entertained and acquiesced in, that scarcely any attempt has been made to ascertain whether they deserve the title which they have long enjoyed, of being considered as *par excellence* English diseases.

The belief in their prevalence has been fostered by general statements which have no definite signification, are out of place in every scientific inquiry, where the statements can be verified by numbers, and are peculiarly so in a society where facts have to be stated in figures.

At an early period of my investigations, I became fully sensible of the necessity of introducing a more precise method of conducting the inquiry than that which had been previously adopted. To say that Scrofula is extremely frequent in one place, and rarely seen in another, is to make a statement which has no absolute value, because so far as I know, it has always been made without particular observation, or accurate comparison, and yet it is upon such statements that theories are constructed.

In submitting the results of the inquiry to this Society, I have taken it for granted that the Society would concede to me, that the medical elements of the inquiry were correctly defined. Whether those elements be strictly correct or not, they are correct for the purposes of comparison. It has therefore seemed to me desirable, to exclude as far as possible all medical questions from the present inquiry.

The means which I have taken to ascertain how far Scrofula prevails in our own country are the following:—I have examined myself,

* "Scrofula; its Nature, its Causes, its Prevalence, and the Principles of Treatment."—BAILLIÈRE.

or by the aid of others, a large number of children in schools, in union houses, in factories, and elsewhere. I have taken a similar course with respect to adults. I have availed myself of a large number of Hospital and Dispensary Returns, which may fairly represent the prevalence of the disease when it comes under treatment. And as correlative evidence, I have procured from the Army Medical Board Returns of Scrofula among Recruits; and from Dr. Baly and others like Returns respecting the inmates of Prisons; and I have taken the Reports of the Registrar-General as evidence of the destructive effects of the disease.

The result of the examination of children is to show, that of 133,721 examined, in many districts,—33,271, or over 24 per cent., presented certain marks of Scrofula; but those marks could only be detected by the eye in 4,127 instances.

In Union Houses the number was somewhat above, in Charity Schools rather below that average. That difference it is easy to understand. Those actually suffering severely did not appear in the school, whilst those in a similar condition were included in the Union House Returns.

These numbers may not exactly represent the prevalence of Scrofula in this country, because an examination of the children found in schools and factories, proves nothing as to children whose condition of suffering from Scrofula prevents them from attending those schools and factories: neither does the examination of children in Union Houses give us a more correct result, because sickly children accumulate in such establishments, while healthy ones are sent out. To correct my results, it was necessary to ascertain the proportion absent from schools, and to ascertain as nearly as might be, the cause of their absence: and this I have done.

I find, then, that when thus corrected, the marks of Scrofula obvious upon simple inspection, among the children of the poor of England and Wales, between the ages of 5 and 16 is, as near as may be, but rather under, $3\frac{1}{2}$ per cent.

But that proportion does not represent the actual prevalence in the whole population; for among adults, similar marks are not found to exist in more than $1\frac{1}{2}$ per cent. of the population.

Taking, therefore, the gross population, the marks of Scrofula are not obvious upon simple inspection in quite $2\frac{1}{4}$ per cent. of the people of this country. We must now test the accuracy of our actual examinations by collateral evidence.

Of 255,297 cases under treatment at Hospitals and Dispensaries, 3187, or 1·2 per cent. are registered Scrofula. It will be borne in mind, that the results of the examination of adults, were to discover marks of the disease in 1·5 per cent.—and all do not come under treatment.

Of 95,586 young men examined for enlistment, 800, or under 1 per cent. were rejected for marks of Scrofula.

Many persons would be inclined to think, that in the examination of Recruits there must be great variety in the results, yet if the Returns be inspected, it will be found that there is a considerable uniformity in the ratio of men found unfit for military service from any given cause. When the numbers are very small, considerable discrepancies are

observable, but as numbers are increased these discrepancies disappear. It has been observed by Mr. Marshall, that in the occurrence of human disabilities, there is a law which determines the proportion of men who are disabled by infirmities, and thereby rendered unfit for the Army. The range of the ratio of rejections during the war did not exceed 5 per cent., although the duties of the *dépôt* were performed by a succession of staff surgeons—a convincing proof that there is a natural law which regulates the proportion of physical disabilities among masses of the population. That law is equally apparent in the prevalence of disease; for although if we take any disease, and observe its occurrence through each one of a series of years, small diversities will occur, yet in the main, and during a period sufficiently prolonged for a fair comparison, the proportion will be preserved. There is a disease which would seem to be in an especial manner under the dominion of accident, namely, Lock-jaw; but I know nothing better calculated than this very disease to enforce a conviction, that what so clearly appears to be the result of accident, is really under the dominion of a settled law.

The next test we apply to ascertain the accuracy of our first estimate, is the result of the examination of convicts at the Millbank Penitentiary, made by Dr. Baly.

In the year 1840, of the prisoners admitted into that establishment, he examined 1052, and found that 14, or 13·3 per 1000, had external marks of Scrofula. In the year 1844 he examined 3249 male convicts, of whom 44, or 13·5 per 1000, had external marks of Scrofula.

It is thus seen, that though derived from such different sources, there is a striking concurrence in the results of the evidence I have collected, and that agreement constitutes a strong reason for believing that my data do very nearly represent the actual prevalence of the disease.

We see that the returns of cases of Scrofula found among our ordinary population are singularly confirmed, not only by the registers of Hospitals and Dispensaries, but also by the examination of recruits and of convicts, and I think we are thus justified in regarding as near the truth our estimate of the prevalence of Scrofula in England and Wales. That is to say, that scars are apparent in about $1\frac{1}{2}$ per cent.; glands so far enlarged as to be perceptible, on simple inspection, in less than 3 per cent.; and that glands are sufficiently enlarged to be detected by the finger in $24\frac{1}{2}$ per cent. of those among the children of the poor, who are under 16; and in 8 per cent. of those above that age; or, taking the whole population, in 10 per cent.; and that something less than 3 per cent. of the people are under treatment constantly for the disease in its various forms.

We have now obtained an estimate of the actual prevalence of Scrofula in England and Wales, but to ascertain whether it be entitled to the distinctive appellation of the English disease, we must next determine how far the disease prevails in other countries.

The means I possess for instituting a comparison are as follows. I can show the prevalence in many other countries by the examination of children, and in France by that of recruits also.

In the Orphan Asylum at Lisbon, Dr. Rozas examined 800 children, of whom 279, or 35 per cent., were Scrofulous. In the Orphan Asylum at Amsterdam, of 495 children 209, or 42 per cent., were

Scrofulous. At the Orphan Asylum at Munich, two-thirds of the children it is said were Scrofulous. At the Royal Orphan Asylum at Vienna, of 412 under treatment, 45, or 11 per cent., were for Scrofula. At the Frederic's Orphan Asylum at Berlin, of 353 children examined, 185, or nearly 53 per cent., were Scrofulous. At St. Petersburg, of 840 examined, 343, or nearly 41 per cent., were Scrofulous. At the Imperial Foundling Hospital, Moscow, of 15,515 examined, 1294 had *evident* marks of Scrofula. At Boston, U. S., of 146 examined, 106, or 70 per cent., were Scrofulous. At Philadelphia, of 2998 examined, only 13 presented the indicated marks of Scrofula. At Beyrout, Cairo, Alexandria, and Greece, 607 children were examined, of whom 132, or more than 21 per cent., were Scrofulous. In Calcutta Dr. Stewart examined a school of 504 native children, of whom 300 were Scrofulous. At Madeira, of 405 children examined, 60 were Scrofulous.

The evidence now offered shows most conclusively, as I apprehend, that the notion that Scrofula is eminently an English disease is incorrect; and that I am warranted in stating, that there is no European country, at least in so far as our information extends, in which the people are more free from the disease than England and Wales! And with respect to France, the results of the examination of recruits tend to the same conclusion. They show that, in raising a contingent of 86,000 men, the rejections for Scrofula amount to 1754, or 2 per cent.

It is stated by many persons, among others by Sir James Clark, that Scrofula and Consumption are observed more frequently at present than formerly; and the fact is, that the destruction of life by those diseases at present, amounts to one-fifth of the general mortality of the country, impresses upon some minds the belief, that the evil could not have fallen so heavily on our population in former times.

Sir James Clark has shown in his work on Consumption, that from 1700 to 1750, the deaths from that disease in London increased from 4 to 6 in every 1000 of the population, and that since the last period they have remained stationary.

The materials for coming to a correct conclusion on this point are scanty, and are very much confined to the population included within the bills of mortality. The first uninterrupted series of weekly bills of mortality commences on the 29th December, 1603, nearly two centuries and a half ago, at which period those bills comprised only 13 out parishes, in addition to 96 parishes within the walls of the City of London. Subsequently to 1603, additional parishes were included. In 1625, the number of burials in every parish was for the first time published. The report of diseases and casualties was first published in 1629; it then included 26 parishes, besides the 97 within the walls. It may be urged that but little confidence can be placed on those tables of disease. To some extent, this is no doubt true; but it is also true, that in the earlier period, the rule was to appoint in each parish "searchers," who, on a death being announced, visited the house of the deceased, and inspected the body, inquiring the age and the disease which occasioned the demise. I do not mean to say that a return so made would exactly represent the causes of death, but, at all events, it is the nearest approximation to accuracy which we possess, and, in my

opinion, it is near enough to justify a comparison. If we look at the deaths from consumption, which form so prominent a feature in the catalogue of diseases, and observe the uniformity of their relation to the population through a long series of years, it constitutes a good ground for believing that there is, at the least, a considerable approach to accuracy. And with respect to the disease popularly known as the King's Evil, the chances of error seem fewer than in most diseases, because the marks are external, and they were well known.

For the evidence which I now propose to use, I am indebted to Mr. Marshall's Tables, published in 1832; and in order to ensure as much accuracy as seems practicable, I shall discard the earlier returns, and begin with 1750 as my starting point.

It will be most convenient to limit the population and the deaths to the districts comprised within the bills of mortality, and I shall give the mortality, whether general or special, in an average of a decennial period, ending at the commencement of the year named in connexion with such mortality.

In 1750, the population was 654,000; the general mortality 25,350, or 1 in 26; the deaths from consumption 4530, or 1 in 144; and the deaths from scrofula 22, or 1 in 29,727. In 1801, the population was 777,000, the general mortality 19,680, or 1 in 40; the deaths from consumption 5023, or 1 in 154; and the deaths from scrofula 5, or 1 in 155,400 of the population. In 1811, the population was 838,000, the general mortality 18,575, or 1 in 48; the deaths from consumption 4,511, or 1 in 196; and the deaths from scrofula under 5, or 1 in 177,600 of the population. In 1821, the population was 1,050,000, the general mortality 19,056, or 1 in 55; the deaths from consumption 4,491, or 1 in 233; and the deaths from scrofula 10, or 1 in 105,000 of the population.

In 1831, the population was 1,223,000, the general mortality was 20,910, or 1 in 61; the deaths from consumption were 4,735, or 1 in 258; and the deaths from scrofula 9, or 1 in 135,888 of the population.

The small number of deaths from scrofula within a period of 10 years, subjects any calculation which may be based upon such a period, to be greatly influenced by accidental or special or temporary causes, and I will therefore give the aggregate deaths from scrofula between the 1st of January, 1700, and the 31st of December, 1750; between the 1st of January, 1751, and the 31st of December, 1800; and between the 1st of January, 1801, and the 31st of December, 1830. Now during the first of those periods the deaths were 2,076, or 41 per annum; during the second 579, or 11 per annum; and during the third period 248, or 8 per annum. And estimating the mean population within the bills of mortality between 1700 and 1750 at 660,000, between 1750 and 1800 at 715,000, and between 1800 and 1830 at 1,000,000, the deaths from scrofula on the average of a year, in the first period will be 1 in 16,097, in the second period 1 in 65,000, and in the third period 1 in 125,000 of the population. It will thus be seen, that whilst in 1750 the general mortality was 1 in 26, and in 1801, 1 in 40, it was reduced in 1831 to 1 in 61; that whilst the deaths from consumption were in 1750, 1 in 144, and in 1801, 1 in 154, they were reduced in 1831 to 1 in 258; and that

whilst the deaths from scrofula averaged between 1700 and 1750, 1 in 16,097 of the population, and between 1750 and 1800, 1 in 65,000, they were reduced between 1800 and 1830 to 1 in 125,000, and in the last 10 years of that period to 1 in 135,800 of the population.

Such is the best evidence which can be obtained of the prevalence of what are regarded as Scrofulous diseases, namely, Scrofula and Consumption, at different periods in the last two centuries.

Although the evidence be to a certain extent defective from uncertainty in the designation of the disease in the bills of mortality, it has a certain value with reference to all diseases, and a very real one as regards Consumption and King's Evil.

Tried then by such tests as I have been enabled to apply, which though not strictly accurate are the best we possess, and which when used with caution constitute a fair body of evidence on the point, the conclusion seems a fair one, that Scrofula is much less prevalent in the present day than it was in the 17th and 18th centuries.

Mortality of the Madras Army; from Official Records.

By LIEUT.-COLONEL SYKES, F.R.S.

VERY vague,—indeed, mistaken ideas, obtaining in Europe with respect to the value of life in India, both European and native, and more particularly so regarding the extent of the mortality arising from that, no doubt, appalling scourge, the Spasmodic Cholera, I have thought it desirable to record in the pages of our Journal the following per centages of deaths, during five years in the Madras Army, a body of about 1,580 European Officers, 3,762 European soldiers, and 62,513 Native soldiers, exclusive of the Royal army, distinguishing Europeans from Natives, and the per centage deaths from all causes, from deaths when Cholera is excluded. It will be a consolation to those connected with India, on referring to these facts, to find that an exaggerated view is generally taken of the diminished value of life in India, and of the loss occasioned by Spasmodic Cholera.

	1840	1841	1842	1843	1844
EUROPEAN TROOPS.					
Deaths from all causes	1·333	3·130	4·205	4·905	2·810
Deaths excluding those from Cholera	3·813	2·969	2·855	3·218	2·397
NATIVE TROOPS.					
Deaths from all causes	1·136	1·460	2·634	2·371	1·994
Deaths excluding those from Cholera	0·965	1·126	1·600	1·144	1·284

It will thus be seen, that amongst the Europeans the deaths from Cholera were, in the respective years, only 0·490, 0·161, 1·350, 1·657, and 0·423, of the whole deaths; and amongst the Natives, 0·171, 0·334, 1·034, 1·227, and 0·710, of the whole deaths.

At a future period I may supply a similar statement for the armies of Bengal and Bombay.

The Influence of Scarcities and of the High Prices of Wheat on the Mortality of the People of England.

[Paper read by WILLIAM FARR, F.S.S., 16th February, 1846.]

THE Council of the Statistical Society have permitted me to occupy a few minutes of your time this evening; to submit to you a series of facts which I have had occasion to collect; and thus to give you an opportunity of discussing this question, and expressing any opinion which you may have formed, from research or observation, on a matter of unquestionable importance. Physiologists tell us, that man, from the analogies of his anatomical structure, is evidently "destined for a mixed kind of aliment, of vegetable and animal origin;" and agree with Dr. Prout, that a sound dietary should always comprise the three kinds of substances provided in milk—1, saccharine matter; 2, butter or fat; and 3, curdy matter, albumen, or flesh. In this as in many other matters, common sense—or instinct—has been beforehand with the physiologists; and we find mankind in all ages eating grain, or flesh, or both, in quantities varying with the climate, their necessities, and circumstances. A predilection for the "roast beef of Old England" dates from an earlier period in this "favoured isle" than our Common Law; and the sirloin figures in old feasting songs: but bread—rye bread, barley bread, and chiefly wheat bread—has been the "staff of life" of the people; although its artificial dearness in the present century has led to a more extensive consumption of the potato than the alimentary merits of that tuber, excellent as it is, justify.

If we may judge from the habits of the best and most vigorous races, man would appear to be able to live on great varieties of food; but in respect to the quantity of nutritive matter the law of his system is less flexible. In the cold, or engaged in hard work, he requires a large quantity of nutriment, and he soon becomes unable to take active exercise, if the supply fall below a given point. Dalton—and subsequently Liebig—have shown that a certain number of ounces of carbon is burnt in the body, to keep up its slightly-varying temperature; and that nitrogenous matter is required to replace the particles destroyed in the evolution of sensation, muscular action, and the other functions. "A healthy man cannot abstain from food a whole day, without great prostration of strength, nor scarcely beyond eight days without danger to life*." Persons have survived from eleven days to fourteen days without food. Hippocrates has remarked, "that most of those who abstained seven days die within that period; and, if they do not, and are even prevailed upon to eat and drink, that still they perish†." This has been confirmed by observations on men, and cruel experiments on animals. It is important to bear in mind, that in total abstinence, life is not extinguished immediately—and that in partial starvation the morbid effects may not be developed for some weeks—and that after their appearance the fever burns on, despite of the means employed to assuage it.

It will not be necessary to enumerate the physical changes produced by privation; but the effects on the mental condition are thus accu-

* "Blumenbach," by Elliotson, p. 53.

† Elliotson, p. 53.

ately summed up by Mueller:—"They are feelings of general debility, actual and gradually increasing loss of strength, fever, delirium, and violent passions, alternating with the deepest despondency*." Shipwrecks and sieges, and disastrous campaigns, supply many examples; but if I have time, I will give instances of these effects, produced by partial privations, on the tempers and passions of nations.

I some time ago examined nearly all the English chroniclers and historians, from Bede and the Saxon chronicle down to Stowe and Holinshed, and extracted all the passages in which scarcities, famines, or epidemics are mentioned. Sir Frederick Eden and Fleetwood† have brought together many of the passages in which prices occur, and a good summary of the results is found in Adam Smith's *Wealth of Nations*, by McCulloch. No correct average prices can be deduced from the few data left on record before the 17th century; and there are no numerical statements of the deaths. The effects of famine were, however, too evident to admit of mistake, or even of exaggeration. I have translated the passages literally, that you may be in a position to judge of the extent of the devastations of hunger, as it was named by the Saxons, and determine from the painful, sad, and almost monotonous narrative, the kind of connexion existing up to the end of the 14th century, between failures of the crops, high prices, and the health and happiness of the people.

Famines recorded in the early English Chronicles.

9TH CENTURY.

A.D.

822 A severe famine. (Asser. Annals.)

10TH CENTURY.

975 Famine scourged the hills. (Saxon Chronicle, by Ingram, whose translation is adopted throughout.)

976 This year was the great famine (*miela hungor*) in England. (Ibid. and Chron. John of Brompton.)

11TH CENTURY.

1004 The English were not without a plague, for such a famine prevailed as no man could remember. (Henry of Huntingdon *Rer. Anglie. Script. ab H. Savillo*, p. 360.)

1005 This year was the great famine in England. Sweyne the Dane left England on account of this dearth. (Saxon Chronicle. *Ranulph de Diceto*, A.D. 1013.)

1042 About this time such a famine came on that the sextarius of wheat, which is usually a load for one horse, sold for five *solidi* and more. (Henry of Huntingdon, p. 365.)

1069 The Normans desolating England, a great famine prevailed last year in Northumberland and some other provinces; but in this and the following year it spread all over England, so that man, driven by hunger, ate human, dog, cat, and horse flesh; some, to sustain a miserable life, sold themselves as slaves, while others, falling down on their way to exile, expired. It was horrible to see in the houses and streets, and by the road sides, human bodies wasting away, putrid, and filled with worms. The soil, without cultivators, lay everywhere a wide solitude for nine years. Between York and Durham there was no inhabited town; only the dens of wild beasts, and thieves terrified the traveller. (*Simcon Dunelm. Hist.*, p. 199, *Script. Savill. Ranulph de Diceto. Annal. Waverl.*)

1070 A great famine. (*Annal Waverl.*, p. 130.)

* "Mueller's Physiology," by Baly, v. i., p. 531.

† "History of the Poor," and the "Chronicon Preciosum."

- 1073 A famine followed by a mortality so fierce, that the living could take no care of the sick, nor bury the dead. (Henry of Huntingdon.)
- 1086 A great murrain of animals, and such intemperate weather, that many died of fever and famine. Nearly all the chief cities of England were consumed by fire; the church of Saint Paul's and great part of London were burnt down. (Henry de Knygh-ton, p. 2353.)
- 1087 After the birth of our Lord and Saviour Christ, one thousand and eighty-seven winters, in the one and twentieth year after William began to govern and direct England, as God granted him, was a very heavy and pestilent season in this land. Such a sickness (cothe) came on men, that full nigh every other man was in this disorder; that is, in the diarrhoea (drif-), and that so dreadfully, that many men died in the disorder. Afterwards came, through the badness of the weather, as we before mentioned, so great a famine over all England, that many hundreds of men died a miserable death through hunger. Alas, how wretched and how rueful a time was there! when the poor wretches lay full nigh driven to untimely death, and afterwards came sharp hunger, and dispatched them withal! Who will not be penetrated with grief at such a season? or who is so hard-hearted as not to weep at such misfortune? Yet such things happen for folk's sins, that they will not love God and righteousness. (Saxon Chron. by Ingram.) (*The chronicler goes on as a monk and a Saxon to paint the sins in the Conqueror's oppression of England.*) "Castles he let men build, and miserably swink the poor." (Annal. Waverl.)
- 1093 A great famine and mortality. (Stow's Annals, p. 132, and Matt. Paris.)
- 1096 This was a very heavy-timed year through all England, both through the manifold tributes, and also through the very heavy-timed hunger that severely oppressed this earth in the course of the year. (Saxon Chronicle.)

12TH CENTURY.

- 1111 The winter was very long, and the season heavy and severe, and through that were the fruits of the earth marred, and there was the greatest murrain of cattle that any man could remember. Birds, and wild as well as domestic animals, perished in great numbers. (Saxon Chronicle and Simeon Dunelm. Hist., p. 234.)
- 1124 Such a famine prevailed in England, that everywhere in cities, villages, and cross roads, lifeless bodies lay unburied in miserable horror. (Simeon Dunelm. Hist., p. 251.)
- 1125 In this same year was so great a flood on Saint Lawrence's-day, that many towns and men were overwhelmed, and bridges broken down, and corn and meadows spoiled withal, and famine and pestilence (cealm) in men and cattle, and in all fruits such unseasonableness as was not known for many years before. (Saxon Chronicle.)
- 1126 Incessant rains during the summer, whence followed in all England a most dire and unheard-of scarcity. A sextarius of wheat sold for twenty shillings (solidi). (Annales de Morgan, vol. ii., p. 6. Rer. Anglie. Scrip., ab H. Savillo.)
- 1162 A great famine all over the world (!). (An. de Morgan.)
- 1175 In England and the adjacent countries a pestilential distemper prevailed, so that for several days 7 or 8 dead bodies were buried, (*query, in one church-yard?*) and immediately afterwards was a dreadful dearth. (Roger de Hoveden Annal. Rer. Ang. Script. ab H. Savillo, p. 547.)
- 1176 A great famine and mortality. (An. de Morgan in Wales.)
- 1183 A severe famine afflicted both England and Wales. (Ibid.)
- 1189 A famine and great mortality. (Annal. Waverlien., p. 184.)
- 1196 Famines, through untimely rains, have now for some years grievously oppressed England and Wales. (Galliam.) The common people (vulgus pauperum) perished everywhere for lack of food: and on the footsteps of famine the fiercest pestilence followed in the form of an acute fever, which seized so many every day, and at last destroyed such numbers, that scarcely any were left to minister to the sick. The accustomed funeral solemnities ceased; and some one dying every hour of the day, it was hardly possible, unless a person were rich or noble, that he could be committed to his mother earth. In many places large ditches were made, into which the dead were thrown. At

the end of six months the pestilence was allayed by the rigours of winter. (Chron. of Walter Hemingford, vol. ii., p. 546, 7. *Rev. Ang. Scrip.*, ab H. Savillo.)

13TH CENTURY.

1203 A great mortality and famine. The monks of Waverly were dispersed on account of the excessive dearth. *Annal. Waverl.*, vol. ii., p. 168.)

1224 A very dry winter, and bad seed-time, whence followed a great famine (fames iugens). (*Annal. Waverl.*, vol. ii., p. 189.)

1252 No rain from Whitsuntide to autumn; no grass; hence arose a severe famine, great mortality of men and cattle, dearth of grain, and scarcity of fruit. (*Chron. T. Wilks*, vol. ii., p. 49.)

1257 The inundations of autumn destroyed the fruit and grain; and, moreover, a scarcity of money, of which the kingdom was despoiled by the Pope and the King, produced unexampled poverty. This pestilential year gave birth to fatal fevers; so that in the summer, particularly in the dog-days, at St. Edmond's alone, to say nothing of other places, the spacious cemetery was occupied by more than 2,000 of the dead.

1258 The north wind prevailed for several months, and when April, May, and great part of June were over, scarcely a small rare flower or shooting germ appeared, whence the hope of harvest was uncertain. Moreover, food failing, (the harvest of the previous year had failed,) innumerable multitudes of poor people died, and their bodies were found lying all about swollen [dropsical] from want, and livid, five or six together, in the pig-sties, in muddy streets, and on dunghills. Nor did those who had homes dare to harbour the sick and dying, for fear of infection, (*propter tabem et contagia infirmorum*.)

About the Festival of Trinity the pestilence was immense—insufferable; it attacked the poor particularly. In London alone 15,000 of the poor perished; in England and elsewhere thousands died. The nobility distributed bread on certain days in London.

When the famine began, the summa of wheat in London sold for nine or more solidi. Fifty ship-loads of wheat, barley, and bread, were procured from Germany, and the citizens of London were forbidden by proclamation to purchase, that they may sell the grain again at a high price to the poor, according to their custom. The monk of Saint Alban's adds, *Quia infames habebantur dieti cives quod in tempore caritatis naves victualibus onustas vel subdolè averterunt, vel in solidum emerunt, ut ad placitum eorum ea venderent postulantis.*

The summa bladi (corn) rose at last to fifteen shillings and more. The rich only escaped death by purchasing foreign grain; the middle classes sold their possessions; and many of honourable degree were reduced to beg from strangers, or, restrained by shame, to pass, hungry, pale, and dinnerless through the night in uncounted sighs. The harvest proved very abundant, but the grain was spoiled or not gathered. (*Matthew Paris, Historia Anglorum*, pp. 963, 968, 973, 976, 987.) Henry de Knyghton, *eodem anno* (1258.)

These famines were attributed to the scarcity of money, brought on by the exactions of the Pope and the King. (*Ibid.*, p. 958.)

1271 A violent tempest and inundation, followed by a severe famine, in the entire district of Canterbury. (*Walt. Hemingford, Rev. Anglie. Scrip.*, p. 593. *Mat. Paris*, p. 969.)

1289 A tempest destroyed the seed. In London the modius of wheat, which at first sold for three pence, then gradually rose to two shillings. For full forty years, even to the death of Edward II., such a dearth of corn (bladi) continued, and particularly wheat (*frumentum*), that in London the modius frumenti sold several times at ten shillings. (*Walsingham, Anglica, &c.*, à *Veteribus Scripta, ex Bibliotheca G. Camdeni.*)

1294 A severe famine afflicted England, and many thousands of the poor perished. The quarter of wheat sold for sixteen shillings, and in many places for twenty shillings sterling. (Henry de Knyghton, *Rev. Ang. Script.*, v.)

1295 This year produced no grain or fruits, so that the poor died of hunger. (*Walsingham, Camden*, p. 63.)

14TH CENTURY.

- 1315 Provisions became dear in May. Parliament attempted to fix the price; nevertheless every thing grew dearer, and in the following year of scarcity every one was allowed to sell at what price he could. The grain was spoiled by the rains, and what remained was innutritious. It is not to be concealed that while the poor wasted with hunger, the rich constantly indulged in luxurious tables. The nobles and the religious houses withheld the accustomed alms. (Walsingham, *Anglica, Hibernica, Normanica, Cambrica, à Veteribus Scripta ex Bibliotheca, G. Camdeni, 1602.*)
- 1316 An universal dearth prevailed, and such a mortality, particularly of the poor, followed, that the living could scarce bury the dead; for a dysentery, generated by corrupted food, infected nearly all, and this was accompanied by an acute fever, which reduced many to extremity. Cattle as well as men were affected. The wisdom of medical men availed not, as the herbs had lost their medicinal virtues. Horse flesh was precious to the starving poor; fat dogs were stolen and eaten; some in retired parts, *it is said*, ate their own sons and daughters; others stole new-born children to devour. Thieves in prison ate those put fresh in amongst them half alive! (Henry de Knyghton, *Reg. Ang. Scrip. x.* Walsingham and Ypodigna Neustriæ in Ang. à vet Script.)
- It was commanded by royal proclamation that no more beer should be made, and that beer should sell at a penny (denarius).
- 1341 In this year (as some write), or (according to others) in the year following, there was such a miserable dearth both in England and Scotland, that the people were driven to eat the flesh of horses, dogs, cats, and such like unused meats, to sustain their languishing lives. (Holinshed's Chronicle, vol. v., p. 380.)
- 1369 A great pestilence among men and the larger animals, followed by inundations, and extensive destruction of grain. The modius of corn sold for three shillings.
- 1390 A great famine in all parts of England, which continued from the beginning of harvest till the new grain came in: you saw children crying out on the way sides for bread, and their mothers had none to break. Such had been the fertility of the previous years, that it was calculated by many economists (yconomis) that England contained grain enough in the granaries to support the population for five years (!) The scarcity among the poor was attributed to the want of money, caused by the King prohibiting our merchants from carrying the wool abroad, whence it was kept unsold for two or three years. Stow says, under this year a great pestilence was in the north parts, so that in a little space 1,100 were buried in the city of York. (Henry de Knyghton, *Scriptores x.*, p. 2609.)
- 1392 A dearth of corn for *two years*, whence it came to pass that when the time of fruits, as nuts, apples, &c., came, many people, through overfeeding thereof, caught the flux. The mayor and aldermen of London advanced money and corn at a low rate to the poor. (Stow's Annals, an. 1392.)

15TH CENTURY.

- 1437 The common price of a quarter of wheat was 4s. or 4s. 6d., but in these years
- 1438 in many places it was 26s. 8d. (Chron. preciosum.)
- 1440 A scarcity. Wheat 3s. a bushel in London; malt 13s. per quarter; oats 8d. per bushel. (Stow's Annals, p. 317.)
- 1545 A wonderful dearth and extreme prices. (1 and 2 Philip and Mary, c. 5.)
- Also see prices of wheat from 1202 to 1601 in M'Culloch's edition of Adam Smith's *Wealth of Nations*, B. 1, c. xi., p. 117.

Only one famine is mentioned in the 9th; and one, of two years' duration, in the 10th century, but these records are manifestly defective. I have drawn up the following summary of the famines in each century from the 11th, and have added in brackets [], from M'Culloch's list of prices (beginning at 1202), the other years which must have been years of great scarcity or famine.

Centuries.	Number of		The Years of Famine.
	Famines.	Years of Famine.	
1001-1100	7	10	1004, 1005; 1042; 1069, 1070; 1073; 1086, 1087; 1093; 1096.
1101-1200	7	10	1111? 1124, 1125, 1126; 1162; 1175, 1176; 1183; 1189; 1196 (some years).
1201-1300	7+3	9+5	1203; [1205]; 1224; [1246, 1247]; 1252; 1257, 1258; 1271; [1286]; 1289, [1290]; 1294, 1295.
1301-1400	4+2	6+3	1315, 1316, [1317]; 1341; [1359]; [1363]; 1369; 1390, 1391.
1401-1500	+7	+8	[1401; 1416; 1434; 1439, 1440; 1486; 1491; 1497].
1501-1600	1+5	+9	[1521; 1545; 1557; 1574; 1587; 1594, 1595, 1596, 1597, 1598].

In the 11th and 12th centuries a famine is recorded every 14 years on an average, and the people suffered 20 years of famine in 200 years. In the 13th century, my list exhibits the same proportion of famines, and nearly the same number of years of famine; the addition of five years of high prices makes the proportion greater: upon the whole, the scarcities decrease during the three following centuries; but the average from 1201 to 1600 is the same,—namely, 7 famines, and 10 years of famine to a century. This is the law regulating scarcities in England.

The destruction of grain, of which famines are the result, arises from “bad seed-times,” “long and severe winters,” “droughts,” “incessant rains during summer or harvest,” “tempests,” “oppression of the cultivators of the soil,” and zymotic diseases of the wheat plant,—a great variety of phenomena generally produced by causes beyond our knowledge and control, but subject to laws which systematic, agricultural statistics will unfold. The collation of the observations loosely made by the chroniclers, on no well-considered uniform plan, but extending over several hundred years, not only establishes the existence, but indicates the nature of these laws.

The close of the 16th century was marked by the commencement of two important series of statistical observations,—the Record of the prices of Wheat in the Eton Books, and the London Bills of Mortality,—which were continued, with scarcely any interruption, through the 17th and 18th centuries. The character and nature of these returns are well known. The London Bills did not include all the deaths,—parishes were gradually added, and the population of the metropolis at any time before 1801 is unknown, so that the absolute mortality cannot be determined. The Windsor prices, taken only twice a year, do not give the real average prices of wheat all the year through in London. A comparison with the averages drawn up by the Receiver of Corn Returns, however, exhibits a general agreement, which places them beyond the reach of the disparaging criticism in the Report of one of the Parliamentary Committees.

In comparing the two series of observations, with a view of ascer-

taining whether there is any connexion between the prices of wheat and the mortality, I have taken periods of 10 years, from 1601 to 1610, 1611 to 1620, &c., up to 1800, and have arranged the years in the order of the prices, beginning with the highest, as in the annexed example.

EXAMPLE.

Year.	Price of Wheat Per Quarter.		Burials in London, according to the London Bills.	Year.	Price of Wheat Per Quarter.		Burials in London, according to the London Bills.
	s.	d.			s.	d.	
1741	47	0	32,169	1750	32	6	23,727
1746	39	0	28,157	1742	32	0	27,483
1748	37	0	23,869	1745	27	4	21,296
1749	37	0	25,516	1743	24	11	25,200
1747	34	10	25,491	1744	24	10	20,606

The deaths in the 5 years of highest prices are then compared with the deaths in the 5 years of lowest prices in the Table, and the general result is, that in the twenty decennial periods, the deaths were 1,971,076 in the 98 years of highest prices, and 1,830,835 in the 98 years of lowest prices. The excess of deaths in the years of highest prices was 140,241. The method, by taking several short equal periods, contains in itself corrections of all the errors arising from the increase of population, or progressive improvements in the metropolis, and resting only on the relative number of deaths, yields results entirely independent of the absolute mortality. See Tables I. II., pp. 168, 169.

The causes of a high mortality are various; but the greater number of known causes may be referred to five heads: 1, excessive cold or heat; 2, privation of food; 3, effluvial poisons generated in marshes, foul prisons, camps, cities; and epidemic diseases, such as typhus, plague, small pox, and other zymotic diseases; 4, mechanical and chemical injuries; 5, spontaneous disorders to which the structure of the human organization renders it liable. The three first classes of independent causes vary in intensity from year to year; and as *each* will separately produce the effect which we are investigating, namely, an increase of deaths, it must be evident that this effect will not always vary as privation or as *any one* of the class of causes. For instance, the sweating sickness, said to have broken out in Richmond's camp, spread through England, and destroyed great numbers. It was a poison in the air, and, like other poisons, its fatal action was not stopped by abundance of food, although its ravages, if aided by famine, might have been rendered more deadly. So of the black death in 1348, the plague in 1665, the cholera in 1832.

Then, low prices do not always denote plenty, nor high prices scarcity. And if high prices increase the mortality, any great mortality has a tendency to reduce the price of provisions. Thus in 1349 "the price of every kind of cattle was much reduced; they wandered about in herds without herdsmen. Corn of all kinds was so abundant that no one cared to gather it." Workmen were scarce, a "great part" of them having been destroyed, and demanded high wages.—See against the years 1348-9, Henry de Knyghton, Rymer's *Fœdera*, Walsingham, J. Barnes, Holmsted.

Those great disturbing causes and the imperfections of the returns

require for the elimination of their effects a series of observations extending through a century. The concurrent evidence of the 17th and 18th centuries appears to me to justify the inference that high prices of wheat—I mean relatively high—irrespective of the other necessities of life, had then a tendency to increase the mortality in London. I submit the facts to the Society in Tables I., II., III.

Mr. Tooke, in his valuable work on Prices, has reviewed all the years of scarcity and high prices in the 18th and 19th centuries. Mr. Tooke had no theory to support on this subject which did not fall within the scope of his work. I therefore take the periods upon which he has fixed to test the effects of dearth. He mentions *seven* periods of various degrees of dearth in the 18th century, exclusive of 1800, which is connected by 1801 with the 19th century: 1709 and 1710 were years of “great dearth;” in 1727, 1728, 1729, “some degree of dearth” was felt; 1740 was “felt as a year of dearth;” “thousands of acres remained unsown in 1756”—there was “a scarcity of corn and a high price of provisions;” in 1766 there was “deariness of provisions;” the quartern loaf in London was at one time as high as 18*d.*; [at Windsor prices were highest in 1767;] the five years 1770-4 are said to have had “unproductive harvests*.” The table (IV., p. 172) presents a comparative view of the deaths reported in the London bills before and after the years mentioned by Mr. Tooke. The correspondence, as might be expected, between the high and low prices, and high and low rates of mortality, is only general.

Mr. Rickman procured from the clergy, returns of the burials at the Established Churches for each year from 1780 to 1830. The returns are incomplete, but they serve to show the relative mortality all over the country in consecutive years. Thus we find that the “partial deficiency” of the harvest of 1794 was followed by scarcity and an increase of deaths in 1795. The harvest was favourable in 1793. The prices in 1794 were 5*s.* 4*d.* per imperial quarter; the burials, 197,740. In 1794 there was a partial deficiency. Prices in 1795 were 7*s.* 6*d.* per imperial quarter; burials rose to 210,339.

In 1799 and 1800 the seasons were “bad,” and the dearth of 1800 and 1801 produced great distress. Committees of both Houses of Parliament were appointed to inquire into the means of supplying the people with food; and with the scarcity a typhus epidemic took its rise concurrently, which was inquired into by a Committee of the House of Commons. The prices and burials returned during the five years 1798-1802 were

Average Prices of the Winchester Quarter of Wheat, Windsor Prices.		Corn Returns.		Burials in England.	
	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	
1798	54	0	50	3	187,531
1799	75	8	67	6	189,586
1800	127	0	113	7	208,063
1801	128	6	118	3	201,134
1802	67	3	67	5	199,889

* “The King’s Speeches,” “Corn Tracts,” and other original authorities, are cited by Mr. Tooke. A little confusion in the dates is apparently caused by the earlier writers making their year terminate in March. Thus the *winter* of 1709, new style, is the winter of 1708, old style.

Prices of Wheat, and the Mortality in the 19th Century.

The price of an imperial quarter of wheat on an average of ten years, never exceeded 48s. 4d. (See Table III.) before the ten years 1791–1800. I exclude the incomplete returns for the ten years 1641–50. For the ten years 1801–10, the average price was 80s. 6d., and for the ten years 1811–20, 77s. 5d. the imperial quarter. The average price of wheat during the twenty years was nearly twice as high as it had ever been during an equal number of years. Now the price varies as the value of wheat, and inversely as the value of the circulating medium; and this elevation of price might be caused either by wheat becoming scarcer, the demand remaining the same, or by the redundancy and reduced value of the circulating medium. The two causes were probably in operation during the first ten years; but I think there can be no doubt that the issue of paper money—inconvertible into gold from 1797 to 1821—was a chief cause of the average price of wheat so far exceeding anything ever before witnessed. If such a change had been made suddenly in the *value* of money by the discovery of mines of gold, or of paper which could be made to pass as the equivalent of gold—that 20 shillings would purchase no more of any article in the twenty years 1801–20, than 10 shillings would purchase previously—the average prices 80s. 6d. and 77s. 5d. would be really equivalent to 40s. 3d. and 38s. 9d., before the Bank Restriction Act. I give this merely as an illustration, and to show that the fluctuations in price had the same range.

Years.	Average Price of the Quarter of Wheat.		Average Price in any year.	
	s.	d.	Highest. s. d.	Lowest. s. d.
1761–70	40	3	54 2	25 5
1801–10 (prices in bullion)	80	6	111 10	56 9
1801–10 (prices divided by 2) 40 3	40	3	55 11	23 5
1621–30	37	11	49 3	23 6
1811–20 (prices in bullion)	77	5	102 6	55 3
1811–20 (prices divided by 2) 38 8	38	8	51 3	27 8

I shall recur to this point. In the mean time it must be borne in mind, that the argument rests on the relative, and not on the absolute prices in periods of ten years; which may, it is true, have been deranged by the progressive change in the value of money. The great number of men in the prime of life, employed in the public service, the enormous expenditure, and the progress of manufactures, increased the demand for labour, and ultimately caused wages to rise. In 1801–10 no less than £179,000,000, in 1811–17, £193,500,000 of debt were contracted. These sums, and the taxes raised were all expended, and the people of 1793–1817 left charged on succeeding generations £600,000,000 of debt, the annual interest of which, in 1817, was £22,830,000*. All classes anticipated and expended, by means of the existing credit and unpayable “promises to pay” their future incomes and the incomes of their successors. The public, like a private spendthrift, felt the distress, and suffered the results, not when it was expending the money and paying high nominal prices, but when it was called upon to fulfil its promises and to pay its debts in 1823 and the subsequent years.

* See M'Culloch's “Statistics of the British Empire.”

The Table V. p. 171, is deduced from the Returns of Church Burials and of Population, published in the Census volumes for 1831 and 1841. The Church Burials in England during the three years 1838-40, are ascertained to have been only 85 per cent. of the total deaths registered. Assuming that the deficiency in the Burial Returns was the same, or 15·103 per cent., the Table shews the mortality of females in each year from 1801 to 1844. The mortality was lowest in 1817, and amidst great fluctuations advanced as high as 2·520 per cent. in 1837, the year that influenza was epidemic. I have preferred taking the mortality of females for the comparison, as it is less easy to determine the true mortality of males, the number of males absent from England having varied considerably during the war, and subsequent peace. In the twenty years 1801-20 the mortality was highest in the two five years of lowest prices. It was the same in the ten years 1831-40.

The facts are analyzed in Table VII., p. 173, where the three years of highest and the three years of lowest prices in each decennium are separated from the four years of medium prices.

Mr. Barton has, I see, in a small tract, advanced the theory, that the mortality is lowest when prices are at a certain medium: the figures in the first decennium support his view, which is, however, entirely at variance with the facts in the three following decennial periods, and with the results of seven years' returns of the numbers of *deaths*, free from the errors incidental to calculations of the mortality, founded upon the church *burials*, which may vary from other causes than differences in the mortality.

Up to 1837 the Registers of Deaths were imperfect. The rate of mortality could only be obtained approximately. The registration under the new system is complete; and with the Censuses of 1831 and 1841, enables us to calculate the proportion of deaths to the increasing population of each year. The results are given in Table IX., p. 174. Taking the three first and the three last years, which are the years of highest and lowest prices, it will be found that the mortality in Yorkshire, Cheshire, Lancashire, and all England, was highest when the prices of wheat were highest.

Average annual Deaths to 100,000 of the Population, in the
three years when the prices of Wheat were

	Highest.	Lowest.
Yorkshire	2239	2147
Lancashire and Cheshire	2789	2468
England	2270	2110

The difference in these rates implies a difference of many thousands in the deaths of the whole country. Out of the same population in Lancashire and Cheshire, for every *seven* deaths in the years of low prices, *eight persons died* in the years of high prices. The mortality was higher in the agricultural counties in the three years when the average price of wheat was high, than in the years when the price of wheat was allowed to fall nearer the natural average which prevailed through the two preceding centuries. For all England, out of the same population, the funerals in the three years of high prices, were 14 to every 13 in the three years of lower prices, approaching the natural standard.

TABLE I.

Prices of Wheat at Windsor Market, and the Burials in London.

YEARS.	Average Price of Wheat per Quarter, (of 72 Gallons, Winchester), from the Eton Books.						Burials, from the London Bills of Mortality.	
	Average of 10 Years.	Highest.	Lowest.	Mean of the Annual Averages.			In the 5 Years when Wheat was Highest.	In the 5 Years when Wheat was Lowest.
				The 5 Highest Years.	The 5 Lowest Years.			
1601-10	s. d. 37 10	(1608) s. d. 56 8	(1602) s. d. 29 4	*14 10	*33 9		*35,219	*64,470
1611-20	41 2	(1613) 48 8	(1620) 30 4	15 7	36 8		40,650	41,022
1621-30	45 2	(1622) 58 8	(1628) 28 0	53 6	36 10		92,892	44,564
1631-40	54 9	(1631) 68 0	(1640) 44 8	59 2	50 4		64,837	54,582
1641† & 1646-50†	68 7	(1648) 85 0	(1646) 48 0	80 7	56 7		29,221	39,981
1651-60	49 6	(1651) 73 4	(1654) 26 0	62 1	36 11		67,938	61,066
1661-70	48 11	(1662) 74 0	(1667) 36 0	58 11	38 10		168,449	84,353
1671-80	50 9	(1674) 68 8	(1676) 38 0	59 10	41 7		98,357	92,811
1681-90	39 1	(1681) 46 8	(1687) 25 2	45 6	32 9		114,007	109,619
1691-1700	55 11	(1698) 68 4	(1691) 34 0	65 1	46 9		104,675	103,925
1701-10	43 1	(1709) 78 4	(1706) 26 0	56 2	29 10		111,115	103,496
1711-20	41 11	(1711) 54 0	(1719) 34 11	49 11	39 11		113,093	126,002
1721-30	42 0	(1728) 54 4	(1723) 34 8	47 8	36 4		141,120	133,802
1731-40	37 6	(1740) 55 0	(1732) 26 8	42 9	32 2		135,815	129,110
1741-50	33 8	(1741) 47 0	(1744) 24 10	39 0	28 4		135,205	118,312
1751-60	42 10	(1757) 60 0	(1755) 33 8	49 1	36 7		99,522	103,975
1761-70	47 11	(1767) 64 6	(1761) 30 3	55 4	40 6		115,826	118,581
1771-80	55 1	(1773) 66 6	(1779) 40 9	61 10	48 4		110,887	103,718
1781-90	57 7	(1790) 63 3	(1786) 47 6	61 8	53 6		93,562	99,128
1791-1800	77 11	(1800) 142 10	(1791) 55 6	96 0	59 10		98,683	98,118

* No return of burials in the two years 1601, 1602. The returns are therefore for the eight years 1603-10. The prices in the *two preceding columns* are for the four highest and the four lowest years in the eight.

† No returns of prices during the Civil Wars, 1642-45.

The Eton prices (1771-1820) of the quarter of 72 gallons (Winchester) are 23 per cent. above the average of the "Receiver of Corn Returns," computed on 64 gallons, Winchester; consequently, assuming the Corn Returns to represent the true averages of all qualities of Wheat, the

Average Price of the (Imperial) Quarter was 40s. 7d. in the 17th century.
 " " " 40s. 6d. in the 18th century.

40s. 6d. the Imperial quarter, or 5s. a bushel, appears to be the natural average price of wheat in England, with a metallic and a regulated, convertible paper currency.

The prices of wheat (Table I) in the two centuries 1601-1800, are from the Eton Books of the prices in Windsor Market at Lady-day and Michaelmas (Preface to RICKMAN'S *Population Returns*, 1831, p. li.) The average of the Eton prices from 1771 to 1820 was

£3·969, the average of the Returns to the Corn Receiver during the same period was £3·230: hence the Eton prices have been reduced throughout in the ratio of $\frac{3\cdot230}{3\cdot969} \times 1\cdot0315157$, to render them comparable with the subsequent averages. The last factor raises the Winchester to the Imperial standard. (Table III., p. 170.)

The bushel at Windsor was of 9 gallons Winchester; and 9 Winchester gallons are to 8 Imperial gallons as $9 : 8\cdot2521256 = 1 : \cdot9169$. For the correction of the measure the Windsor prices must therefore be reduced 8·31 per cent.; the further reduction of 7·74 per cent. being for *quality of grain*, for difference of the markets, or for the different modes of taking the average. The price in the Eton Books being £1·0000

·9169 correction for quantity.

·8395 correction for quantity and quality.

Prices of Wheat in Windsor Market, from the Eton Books.

Average prices of 72 gallons of wheat, Winchester measure:

	s.	d.
17th century	48	4
18th century	48	3

Average prices of 64 gallons of wheat, imperial measure:

	s.	d.
17th century	44	7
18th century	44	6

	s.	d.
Average prices of 64 gallons of wheat, imperial measure, reduced		
in the ratio the Windsor prices bore to the average prices	40	7
given by the Receiver of Corn Returns, 1771-1820.....	40	6
The average prices at Dantzic during the ten years 1831-40 were	41	7

TABLE II.

*Prices of Wheat at Windsor Market and the Burials in London.
(17th and 18th Centuries.)*

	Average Price of Wheat per Quarter, (of 72 Gallons, Winchester) from the Eton Books.					Burials, from the London Bills of Mortality.		Excess of Burials in the years when Wheat was dear.
	Average of the Century.	Highest Year.	Lowest Year.	Mean of Annual Averages.		In the 48 and 50 years when Wheat was highest.	In the 48 and 50 years when Wheat was lowest.	
				Ten of the 5 highest years.	Ten of the 5 lowest years.			
17th Century, (96* years) ..	s. d. 48 4	s. d. (1648) 35 0	s. d. (1687) 25 2	s. d. 56 4	s. d. 40 4	316,243	695,493	120,755
18th Century ..	48 3	†(1800) 142 11	(1744) 24 10	55 11	40 6	1,154,823	1,135,342	19,486
17th and 18th Centuries ..	48 4			56 2	40 5	1,971,076	1,830,835	140,241

* The returns were interrupted during the years of the Civil Wars, 1642—45.

† Exclusive of the last 10 years of the 18th century the maximum price attained was 78s. 4d. in 1709.

The prices in Table III from 1801 to 1820 have been reduced to the prices in bullion, by the Table in M'Culloch's *Dictionary*, Article, Bank.

TABLE III.

Average of the Highest and Lowest Prices of Wheat during each period of 10 Years, 1601 to 1845, compared with the corresponding Mortality.

1601—1800. (Imperial Measure—from Eton prices corrected for quality and quantity, &c., of Grain, by a comparison with the Returns published by the Receiver—1771—1820.)

1801—45. The price of the Imperial Quarter deduced from Corn Returns. Prices stated in bullion from 1801 to 1820.

Years.	Average of 10 Years.		Average of 5 Highest.		Average of 5 Lowest.		Highest.		Lowest.		Burials, from the London Bills of Mortality.			
											In the 5 years when Wheat was highest.	In the 5 years when Wheat was lowest.		
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.				
1601-10	31	9	36	1	27	5	(1608)	47	7	(1602)	24	7	35,219	61,470
1611-20	34	6	38	4	30	9	(1613)	40	10	(1620)	25	6	49,650	41,022
1621-30	37	11	44	11	30	11	(1622)	49	3	(1628)	23	6	92,892	41,564
1631-40	46	0	49	8	42	3	(1631)	57	1	(1640)	37	6	64,837	54,582
1641, 6-50 (6 years)	57	7	67	7	47	6	(1648)	71	4	(1646)	40	4	29,224	39,981
1651-60	41	6	52	1	31	0	(1651)	61	7	(1654)	21	10	67,938	61,066
1661-70	41	0	49	6	32	7	(1662)	62	1	(1667)	30	3	168,449	84,353
1671-80	42	7	50	2	34	11	(1674)	57	8	(1676)	31	11	98,357	92,811
1681-90	32	10	38	2	27	6	(1681)	39	2	(1687)	21	1	114,007	109,619
1691-1700	46	11	51	7	39	3	(1698)	57	4	(1691)	28	6	104,675	103,025
1701-10	36	2	47	2	25	1	(1709)	65	9	(1706)	21	10	111,115	103,496
1711-20	37	8	41	11	33	6	(1711)	45	4	(1719)	29	4	113,093	126,002
1721-30	35	3	40	0	30	6	(1728)	45	7	(1723)	29	1	141,120	133,802
1731-40	31	5	35	11	27	0	(1740)	46	2	(1732)	22	5	135,815	129,110
1741-50	28	3	32	8	23	9	(1741)	39	6	(1744)	20	10	135,205	118,312
1751-60	36	0	41	3	30	9	(1757)	50	4	(1755)	28	3	99,522	105,075
1761-70	40	3	46	5	34	0	(1767)	54	2	(1761)	25	5	115,826	118,581
1771-80	46	3	51	11	40	7	(1773)	55	10	(1779)	34	2	110,887	103,718
1781-90	18	4	51	9	44	11	(1790)	53	1	(1786)	39	11	93,562	99,128
1791-1800	65	5	80	7	50	3	(1800)	119	11	(1791)	46	7	98,683	98,118
											Annual Mortality in England.			
Prices from Corn Returns.											Per Cent.	Per Cent.		
1801-10	80	6	94	0	66	11	(1801)	111	10	(1803)	56	9	2.287	2.356
1811-20	77	5	91	8	63	2	(1812)	102	6	(1815)	55	3	2.055	2.095
1821-30	59	4	64	8	53	11	(1825)	68	7	(1822)	44	7	2.183	2.150
1831-40	56	11	65	4	48	7	(1839)	70	8	(1835)	39	4	2.219	2.262
1841-45 (5 years)	54		9		....		(1841)	64	4	(1843)	50	1	2.067 (4 years.)	

This Table, chiefly derived from Table I., is new, and enables us to compare the money prices of the same measure (Imperial) and quality of wheat, during 245 years. The calculations were made, as above explained, in duplicate, by Mr. W. Clode and Mr. T. Roberts.

TABLE V.—Average Price of Wheat per Imperial Quarter, and Annual Rate of Mortality (Females) 1801-44.

Year.	Average Price of the Imperial Quarter of Wheat in England, from the Corn Returns.		Annual Mortality, (of Females).			Average Price of Wheat in Bullion.	
			Per Cent.	Nearly One in			
	s.	d.				s.	d.
1801	122	1	2·619	38	Dearth and Typhus.	111	10
1802	69	6	2·517	40		64	6
1803	58	3	2·506	40		56	9
1804	62	0	2·189	46		60	4
1805	90	7	2·173	46		88	2
1806	81	6	2·168	46		79	4
1807	75	7	2·297	44		73	7
1808	81	6	2·273	44		79	4
1809	98	7	2·139	47		96	0
1810	109	6	2·335	43		94	9
1811	97	6	2·083	48		89	10
1812	129	5	2·071	48		102	6
1813	112	2	2·003	50		86	6
1814	76	4	2·189	46		57	2
1815	66	0	2·053	49		55	3
1816	78	3	2·105	48		65	2
1817	97	9	1·997	50		95	1
1818	86	9	2·121	47		84	5
1819	75	4	2·107	47		71	11
1820	67	11	2·021	49		66	2
1821	56	2	2·007	50	Asiatic Cholera Epi- demic.		
1822	44	7	2·058	49			
1823	53	5	2·188	46			
1824	61	0	2·198	45			
1825	68	7	2·260	44			
1826	58	9	2·347	43			
1827	56	9	2·152	46			
1828	60	5	2·162	46			
1829	66	3	2·205	45			
1830	64	3	2·090	48			
1831	66	4	2·252	44	Asiatic Cholera Epi- demic.		
1832	58	8	2·398	42			
1833	52	11	2·300	43			
1834	46	2	2·213	45			
1835	39	4	2·148	47			
1836	18	6	2·127	47			
1837	55	10	2·520	40			
1838	61	7	2·140	48			
1839	70	8	2·096	48			
1840	66	1	2·205	45			
1841	61	4	2·083	48	(From Returns of Deaths under the Re- gistration Act.)		
1842	57	3	2·095	48			
1843	50	1	2·041	49			
1844	51	3	2·071	48			
1845	50	10					

The prices, 1801-20, set forth by the Receiver of Corn Returns, and taken from McCulloch's *Commercial Dictionary* (Art. Corn Laws), have been multiplied by 1·03, &c., as a correction for the Imperial measure. The Returns from 1821-35 are from McCulloch also; those from 1836-45 have been kindly supplied by Mr. Porter.

The Imperial quarter is the measure throughout the Table III, and the prices represent those under the averages of the Receiver of Corn Returns. The deaths up to 1800 are from the London Bills; the mortality of females, from that date to 1837, is from the returns of burials and of the population for all England.

TABLE IV.
(Referred to p. 165.)

Years.	Price of wheat per Imperial Quarter*.	Burials in London.	Years.	Price of Wheat per Imperial Quarter.	Burials in London.
	<i>s. d.</i>			<i>s. d.</i>	
1708	41 4	21,291	1754	34 8	22,696
1709	78 4	21,800	1755	33 8	21,917
1710	78 0	21,620	1756	45 3	20,872
1711	54 0	19,833	1757	60 0	21,313
1712	46 4	21,198	1758	50 0	17,576
1726	46 0	29,647	1764	46 9	23,202
1727	42 0	28,418	1765	54 0	23,230
1728	54 4	27,810	1766	48 6	23,911
1729	47 6	29,722	1767	64 6	22,612
1730	36 6	26,761	1768	60 6	23,639
1738	35 6	25,825	1770	49 0	22,434
1739	37 4	25,432	1771	57 0	21,780
1740	55 0	30,811	1772	66 0	26,053
1741	47 0	32,169	1773	66 0	21,656
1742	32 0	27,483	1774	62 0	20,884
1743	24 11	25,200			

* Deduced from the Eton Returns.

TABLE VI.

Annual Rate of Mortality in England and Wales (Females), average Price of Wheat per Imperial Quarter (from the Corn Returns—prices not reduced to bullion), and Years when Prices were Highest and Lowest, from 1801 to 1845.

Years.	Annual Mortality.		Average price of Wheat per Quarter (Imperial).	Year of Highest Prices.	Year of Lowest Prices.
	One in	Per Cent.			
			<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1801-10	43	2.322	84 11	(1801) 122 1	(1803) 58 3
1811-20	48	2.075	88 10	(1812) 129 5	(1815) 66 4
1821-30	46	2.167	59 4	(1825) 68 7	(1822) 41 7
1831-40	45	2.210	56 11	(1839) 70 8	(1835) 39 4
1841-45 (5 years)	48	2.067	54 9	(1841) 64 4	(1843) 50 1
1801-45	46	2.186	70 6	129 5	39 4

TABLE VII.

Years.	Annual Mortality.		Average price of Wheat per Quarter (Imperial).	Highest Year.	Lowest Year.
	One in	Per Cent.			
1801-20	45.5	2.199	<i>s. d.</i> 86 11	(1812) <i>s. d.</i> 129 5	(1803) <i>s. d.</i> 58 3
1821-40	45.4	2.204	58 2	(1839) 70 8	(1835) 39 4

TABLE VIII.

Years.	Average prices of Wheat per Imperial Quarter (in Bullion, 1801-20).	Average Annual Mortality per Cent.	Periods of 10 Years.
1801, 1809, 1810	<i>s. d.</i> 100 10	2.364	1801-10. In which the prices of Wheat were highest. Fever epidemic in 1801, continued through 1802 and 1803, after the prices of Wheat had gone down.
1805, 1806, 1808, 1809	80 1	2.228	In which the prices of Wheat were medium.
1802, 1801, 1803	60 6	2.404	" " " lowest.
1812, 1817, 1811	95 10	2.050	1811-20. In which the prices of Wheat were highest.
1813, 1818, 1819, 1820	77 3	2.063	" " " medium.
1816, 1814, 1815	59 2	2.116	" " " lowest.
1825, 1829, 1830	66 4	2.185	1821-30. In which the prices of Wheat were highest.
1824, 1828, 1826, 1827	60 0	2.215	" " " medium.
1821, 1823, 1822	51 5	2.084	" " " lowest.
1839, 1831, 1840	67 9	2.181	1831-40. In which the prices of Wheat were highest. (Cholera epidemic, 1832, 1833.)
1838, 1832, 1837, 1833	58 0	2.344	" " " medium.
1836, 1834, 1835	44 8	2.163	(Influenza epidemic.) " " " lowest.
			Of the 20 Years
6 years.....	67 2	2.183	1821-40. In which the prices of Wheat were highest.
8 years	59 0	2.280	" " " medium.
6 years.....	48 2	2.124	" " " lowest.

The mortality in the last twenty years has, according to the Table VIII., been lowest when the prices of wheat were lowest.

		Mortality.		s.	d.
1821-30	Prices highest	2.185	Prices.....	66	4
	Prices lowest	2.024	Prices.....	51	5
1831-40	Prices highest	2.181	Prices.....	67	9
	Prices lowest	2.163	Prices.....	44	8

In the twenty years 1801-20, when the currency was depreciated, the reverse was observed. But the high mortality in the first ten years was caused by an epidemic of typhus, which began in the scarcity of 1800-1, and continued after prices had fallen through 1802-3.

TABLE IX.

Annual Mortality of Males and Females compared with the prices of Wheat in England; the prices of Meat, and the rates of Wages at Greenwich Hospital.

YEARS.		1838	1839	1840	1841	1842	1843	1844
Annual Deaths to 100,000 of the Population.	In England and Wales	2240	2187	2290	2160	2167	2120	2155
	In Lancashire and Cheshire	2568	2843	2957	2541	2526	2491	2386
	In Yorkshire	2161	2317	2333	2164	2158	2113	2058
Average Price of Wheat		s. d. 64 7	s. d. 70 8	s. d. 66 4	s. d. 64 4	s. d. 57 3	s. d. 50 1	s. d. 51 3
Price of Meat, per cwt., } Greenwich Hospital		42 5	47 8	54 0	56 1	52 9	40 1	40 10
Daily Wages at Greenwich Hospital	Bricklayers.....	4 9	4 9	4 9	5 3	5 3	5 3	5 3
	Masons	5 3	5 3	5 3	5 5	5 5	5 5	5 5
	Plumbers	5 5	5 5	5 5	5 9	5 9	5 9	5 9
	Carpenters	5 5	5 5	5 5	5 8	5 8	5 8	5 8

The Rise of Commercial Intercourse between Russia and China.
Translated by RICHARD VALPY, ESQ.

[The following short notice of the trade between Russia and China was first given in the "Lloyd Autrichien" newspaper.]

It appears that the interchange of commodities by the merchants of these two nations was first established in the year 1616. The Emperor Michael Feodorowicz, in 1629, directed the authorities on the frontiers to cultivate more intimate relations with the Chinese, and, in 1655, the first envoys to China were despatched by the Czar Alexej Mikhailowicz, but they were not received. A second mission, which set out in 1675, charged with rich presents for the sovereign of the Celestial Empire, was received, but met with little success. During this state of affairs war broke out between the Russians and Monguls, in the course of which the former possessed themselves of the town of Alhazin. After protracted negotiations, and the sacrifice of large sums of money, the first treaty between Russia and China was concluded at Nertchinsk on the 18th of August, 1689, and it was agreed that the merchants of the two nations should be permitted to trade with each other. For some years after this time, the intercourse of the traders was subject to interruption, and, at a later period, the articles of Nertchinsk were confirmed at Selenginsk, without the provision, however, of sufficient guarantees for the personal safety of the merchants.

In 1719 Peter the Great sent an ambassador, accompanied with superb gifts of weapons, horses, &c., to the warlike emperor Kam-tchi, for the purpose of renewing the treaty of 1689. Kam-tchi consented to allow a Russian consul to reside at Pekin from that time, to watch over and protect the merchants of his country whose caravans resorted to that city. The Emperor of Russia engaged on his part to send back into the Chinese empire 750 families of the Tungouses, who had established themselves on the Russian territory.

At this period the Czar was in Persia, which considerably retarded the negotiations, and the parties in China, who were hostile to the Russians, took advantage of this circumstance to break the alliance which had scarcely known a beginning, and no trade was carried on between the two countries until the reign of the Empress Catherine.

In 1727 Catherine delegated Count Ragowsinski, by whom the Emperor of China sent a letter to the Governor of Ourga, authorising him to conclude a treaty of commerce. By this treaty a free right to trade was secured to the subjects of the two countries, and the caravans which went to Pekin were to enjoy the same privileges, both on the frontiers and in the interior; the couriers of the two countries were to be allowed to pass unrestricted, and China relinquished her claim to the restitution of the 750 Tungousian families. A place bordering on the two countries was, however, determined on for the transaction of their commerce, and the establishment, in 1727, of the market of Kiakhta, on the Russian frontier, and of Maïmatchin, on the borders of China, was the result of this treaty.

Kiakhta, situated on a river of the same name, is in the Government of Irkoutsk, and contains about 500 houses, and 3,300 inhabitants. It derives great importance from being the only commercial

place in Siberia, and serving as the mart for China. It is surrounded with lofty granite mountains, which are covered with forests. The fort of Troïtskosarskaja or Kiachtinskaja is placed on one of the chief summits of the mountains, and commands a view of the streets and warehouses of the Chinese market-town, as well as of their fort. On another eminence the boundaries of the two empires may be seen—the Russian being distinguished by a mound, surmounted with a cross, and the Chinese by a pyramid. The fort of Kiakhita has three gates, leading respectively to Selinginsk, the Chinese fort, and the river, and it is protected by palisades and bastions. In consequence of the water in the wells being insalubrious, and there being frequently but little water in the river, the Russian Government has often contemplated the removal of this factory to another place. The Chinese market is 60 toises, or 380 feet, distant from the Russian fort.

Notwithstanding the preceding treaties, the commerce between Russia and China was insignificant until the year 1784, and the great importance that it has subsequently acquired may be traced to the supplementary articles of 1793.

In the month of December the principal fair is held at Maïmatchin, and it is productive of considerable benefit to Siberia, from the concourse of merchants which it assembles from all parts of the empire, and the powerful impetus the different branches of industry receive from their presence.

Barter is the only mode of trading. The Russians bring woollens, furs, beaver skins, foxes' tails, hides, leather, glass wares, steel, cotton goods, and nankeens manufactured in Russia. In addition to these articles a considerable quantity of furs, the produce of the American Company, is brought by way of Ochotsek, and forms a very thriving branch of the import trade. The great demand is for skins of a common description, which the Chinese dye, with very great success, to imitate sable and other furs of the first class. For this purpose, foxes' skins from the Aleutian Islands, near Behring's Straits, are most sought after; and next, the skins of wolves from the rivers and coasts.

The trade in woollens is very important, and owing to the increase of the Russian import duties, the cloths of Prussia are quite shut out from the market of China, where they were sold to the amount of ten millions of thalers, or nearly £1,500,000 sterling. The manufactories of Warsaw, and of Sibiłowa, near Moscow, now furnish the requisite supply, which has to be transported, not without risk, a distance of 3,000 versts, or 5,300 miles, to the frontier market of exchange, which is situated more than 2,000 versts, or 1,300 miles, from Pekin.

The articles brought by the Chinese for exchange, consist of tea, precious stones, raw and manufactured silk, wool, rhubarb, and other drugs, porcelain, colours, silver, gold dust, &c. The consumption of tea in Russia is very great, as the middling classes make a more frequent use of that beverage than the rich. Every year 50,000 chests of tea arrive at Maïmatchin and Kiakhita, of the declared official value of 7,107,500 silver roubles, or £1,185,000 sterling, and to this may be added 231,325 silver roubles, or £33,650 sterling for inferior tea used by the people of the South, which makes the total declared value of tea, so received, amount to 7,339,325 silver roubles, or £1,223,650 sterling.

Criminal Tables for the Year 1845.—England and Wales.

The following Explanations and Calculations, with reference to the accompanying Tables, have been made by Mr. REDGRAVE, of the Home Office, who compiled and prepared the Tables.

THE records of the Commitments for Trial have shewn, with only very trifling intermissions, a continuous increase in the numbers of offenders annually committed. From the first record in 1805 (when the Commitments for the whole of England and Wales did not exceed the numbers now committed in the metropolitan county alone) to 1842, when the Commitments attained the maximum hitherto recorded, this increase had progressed from year to year until it had extended to above 600 per cent.

In 1843 a change commenced. In that year the Commitments decreased 5·5 per cent. In the next year there was a more considerable decrease, no less than 10·3 per cent.; which was succeeded in 1845 by a further decrease of 8·4 per cent.—this period forming only the second instance in 40 years of a decrease of Commitments extending over three consecutive years. In the last six years, three years of great increase have been followed by three years of decrease so considerable, that the number of Commitments in 1845 has been reduced to what it was seven years ago.

In the following analysis, this decrease, which has continued during the last three years, will be contrasted with the increase in the preceding three years, for the purpose of pointing out those offences in which the proportionate decrease has been the most remarkable. This inquiry will serve to distinguish the crimes which have arisen out of the temporary depression and distress of the labouring classes, from those which may be attributed to more permanent causes, more especially the want of instruction and moral training.

The number of the Commitments in each of the last nine years, and the totals in each period of three years, were as follows:—

1837	23,612	1840	27,187	1843	29,591
1838	23,091	1841	27,760	1844	26,542
1839	24,443	1842	31,309	1845	24,303
	<hr/>		<hr/>		<hr/>
	71,149		86,256		80,436

The increase in the first of these periods, compared with the corresponding preceding period, was 10·9 per cent.; in the second, 21·2; and the decrease in the last period 6·7 per cent. Such are the general results. In examining them in detail, it will be necessary, in the first place, to trace the proportionate decrease in the several counties, and then to show how far it has affected the different descriptions of crime.

Commencing with the great Mineral District in the north of England, comprising Cumberland, Northumberland, and Durham, there appears in these counties a decrease of 37 per cent. in 1845. The decrease which began generally in 1843 did not extend to this district until last year, probably from the ill effects of the protracted “strikes”

among the miners; and the unfavourable comparison in the two last periods of three years, which show an increase of 17 per cent. in this district, may be attributed to the same cause.

In the extensive and populous counties of Yorkshire and Lancashire, the chief seats of the great staple Woollen and Cotton Manufactures, the large decrease of Commitments in 1843 and 1844 has continued, and there is a decrease in 1845, which arises chiefly in Yorkshire, of 6·9 per cent., and, comparing the two last periods of three years, of 19·1 per cent.

In the adjoining counties of Chester, Derby, Nottingham, and Leicester, where the silk, lace, and hosiery manufactures are chiefly carried on, a considerable decrease is shewn in each county, which last year reached 22 per cent. on the aggregate, and 13·2 per cent. on a comparison of the two last periods of three years.

The decrease has also extended to Staffordshire, Warwickshire, and Worcestershire, the seats of the principal hardware, pottery, and glass manufactures, and to the adjoining county of Gloucester. In this district the aggregate decrease in 1845 was 13 per cent., in the two last three years 9·6 per cent.

The record of this state of the Commitments in the counties above mentioned, which comprise the chief industrial population of England, and the chief of her manufacturing and commercial products, is very satisfactory. The aggregate decrease for these districts in the last year amounts to 14 per cent.; and on the extended comparison of the two last periods of three years to 14·1 per cent.

In the agricultural districts, where the decrease was only partial in 1844, it has been more general and of larger amount in the last year. In each of the large northern and north-eastern counties of Lincoln, Norfolk, Suffolk, and Essex, there was a considerable decrease, amounting together to no less than 22·1 per cent. In the midland group, comprising Cambridge, Northampton, Hertford, Bedford, Bucks, Oxford, and Berks, there was a decrease of 6·2 per cent.; and in the south and south-western counties of Sussex, Hants, Wilts, Dorset, Somerset, and Devon, a decrease of 2·9 per cent. But in these two latter districts there was an increase, though merely nominal in amount, in the counties of Northampton, Bucks, Oxford, Hants, Dorset, and Devon.

Such are the results in the agricultural districts. Including the counties of Westmoreland, Salop, and Hereford, which have not been noticed above, they prove an aggregate decrease of 10 per cent. last year, and of 5 per cent. on a comparison of the two last periods of three years.

The decrease of Commitments in England has therefore been general, continued, and extensive to a degree of which there is no recorded example in this kingdom. The Metropolis forms the only great exception to this favourable statement. Middlesex alone contains one-tenth of the total population of England and Wales, and has more than a double proportion of Commitments. The steady increase of Commitments in this county has been the subject of remark in former years: this increase has continued: in the last year, when the Returns for every other large manufacturing and commercial county showed a decrease of Commitments, the increase in Middlesex was 10·2 per

cent.; and, on a comparison of the two last periods of three years, 13 per cent. In Surrey and Kent, which so closely adjoin the Metropolis, and within the boundaries of which so large a proportion of the population of Surrey resides, the results are more favourable. In Surrey last year the numbers remained the same as in the preceding year; and there was a decrease of 6·1 per cent. on a comparison of the two last periods of three years. In Kent there was a decrease of 8·8 per cent. last year, and of 9·9 per cent. on the two last periods of three years.

In Wales the Commitments in several counties are few, and subject to much variation. In North Wales there was a small aggregate decrease last year, an increase of 5·9 per cent. on the two last three years. In the most populous districts of South Wales the Commitments decreased 15·1 per cent. last year; and though there was also a decrease of 5·5 per cent. in the preceding year, yet, on carrying back the comparison to the two last three years, the effects of the great increase which has taken place in these counties is still apparent, and exceeds 29 per cent.

Having traced the proportion of the decreased Commitments in the different localities, it follows next to point out those crimes in which such decrease has been the most perceptible. In this inquiry it is important to bear in mind that the general decrease of the last year amounted to 8·4 per cent., and on the comparison of the two last periods of three years, to 6·7 per cent.

Of the six classes into which Crimes have been arranged in the "Criminal Tables," the 1st class, comprizing the *Offences against the Person*, contains the chief crimes of the greatest turpitude. In this class the aggregate decrease last year was 14·7 per cent. It amounted to no less than 25 per cent. in offences of murder, attempts to murder and maim, and manslaughter, and to nearly 40 per cent. in concealment of the births of infants—a crime, in most cases, closely connected with murder. In the unnatural offences, which had been increasing for several previous years, the decrease was 39 per cent., and in rape and attempts to ravish, 29 per cent. There was, in fact, no increase of importance on any offence in this class. On carrying back the comparison to the last two periods of three years, the result is different. The offences included in this class, which have been subject to great variations, irrespective of Commitments generally, increased 14·1 per cent. in 1843; and the partial decrease of 1844, though added to the large decrease last year, still leaves an increase of 9 per cent., which extends to all the worst offences.

In the 2nd Class—*The Offences against Property with Violence*—there was a considerable decrease in 1845, which is general on the whole class, and amounts to 16·4 per cent. In burglary and house-breaking this decrease was 11·8 per cent.; and in robbery 25·5 per cent. On a comparison of the two last periods of three years, a decrease of nearly 3·8 per cent. is shown, though it has arisen on the least atrocious offences; and in burglary, and the more violent descriptions of robbery, there was an increase.

It is the 3rd Class—*The Offences against Property committed without Violence*—which, comprising all simple cases of theft and fraud, contains the great bulk of the commitments. In this important class the

decrease in 1845 amounted to 4·5 per cent., and included all the principal offences except larceny from the person and larceny by servants. The decrease, which commenced in 1843, was in that year, with one exception, confined to this class of offences; it has steadily continued in the last two years, and shows a total decrease of 7·9 per cent. on a comparison of the three years ending in 1842 with the last three years.

In the 4th Class—*The Malicious Offences against Property*—is included all commitments for wilful burning, and wanton injuries to cattle and property. From the prevalence of incendiarism, particularly in the eastern agricultural districts, the offences of this class showed a very considerable increase in 1844, and the decrease did not commence till 1845; but in that year it amounted to 57 per cent., and was common to the whole class. On a comparison of the two last periods of three years, there appears an increase of no less than 76 per cent., arising out of the great prevalence of incendiary offences in the years 1843 and 1844.

In *Forgery and Offences against the Currency*—Class 5—there was a decrease in 1845 of 20 per cent. on the class, and of nearly 27 per cent. on forgery separately. On the two last periods of three years there was a slight increase, amounting for the whole class to 2·7 per cent.

In the 6th Class, containing those offences which do not fall within the definitions of the foregoing classes, the commitments decreased one-third in 1845. This decrease extends to the offences against the game laws, perjury, riots, and breaches of the peace, and to the prosecutions for keeping disorderly houses; and there is a total absence of commitments for seditious riots or sedition. In the three last, compared with the three preceding years, the decrease on the class amounts to 27 per cent.

It appears from the foregoing statements that the decrease which arose in 1843 was in that year confined to the simple offences of theft, and was most considerable in all those petty offences which form the bulk of the 3rd class, and which are the usual commencement of a course of crime. In 1844, the second year of decreasing commitments, the decrease of this description of offences continued, and the decrease at the same time extended to burglary, housebreaking, and robbery,—crimes usually committed by more practised depredators; to forgery, and offences against the currency; to poaching; and, though but slightly, to the offences against the person. In 1845, the third year of decreasing commitments, the decrease, although less in amount, continued in thefts committed without violence; and also in the offences against property with violence; and became more considerable in forgery, coining, and uttering counterfeit coin. The offences against the person, in which the decrease did not commence till 1844, and was then only of trifling amount, showed in 1845 a large decrease. In the same year, the malicious offences against property, which had been previously unaffected by the general decrease of commitments, decreased very considerably, and every description of offences was then included in the decrease.

The decrease of crimes of violence which has characterized the Commitments, particularly in the last year, has been accompanied, as might be anticipated, by a considerable decrease of the more severe

punishments. This is most conspicuous in the numbers sentenced to transportation, which, on a comparison of the two last periods of three years, has decreased 14·1 per cent., a ratio more than double the decrease of the Commitments. The sentences passed in the two last periods of three years were as follows:—

	1840	1841	1842	1840-42	1843	1844	1845	1843-45
Death	77	80	57	214	97	37	49	203
Transportation for Life	233	156	191	585	225	180	79	484
„ above 15 years	18	21	37	76	46	50	22	118
„ 15 yrs., and above 10 yrs. ..	714	709	726	2,149	641	543	405	1,589
„ 10 yrs., „ 7 yrs. ..	1,194	1,240	1,402	3,836	1,471	1,126	1,119	3,716
„ 7 yrs.	1,941	1,674	1,841	5,456	1,800	1,421	1,273	4,494
Imprisonment above 3 years	1	..	1	2	..	1	..	1
„ 3 years, and above 2 years ..	35	10	13	58	2	13	3	18
„ 2 years, „ 1 year ..	548	465	464	1,477	464	454	360	1,278
„ 1 year, „ 6 mths. ..	2,064	2,060	2,594	6,718	2,332	1,927	1,654	5,913
„ 6 months, and under ..	12,462	13,212	14,799	40,473	13,477	12,574	12,035	38,086
Whipped, Fined, and Discharged ..	632	653	601	1,886	531	566	398	1,495

In the six years above-mentioned, the number of prisoners detained in custody as insane was—

	1840	1841	1842	1840-42	1843	1844	1845	1843-45
Found Insane	13	14	10	37	12	16	12	40
Acquitted on the ground of Insanity	12	14	13	39	17	21	19	57

In each of the six *Classes of Offences* the proportion of Acquittals and Discharges in the last year was as follows:—

1st Class, Offences against the Person	33·82 per cent.
2nd „ Offences against Property, with Violence	27·53 „
3rd „ „ „ without Violence	26·97 „
4th „ Malicious Offences against Property	65·77 „
5th „ Forgery, and Offences against the Currency	22·37 „
6th „ Other Offences (not included in the above Classes) ..	44·37 „

The considerable variation shown by the above figures would probably to a great extent arise from the difficulty of proof which attends some crimes, and in consequence of the severe penalties which attach to others.

The direct comparison of the ages of criminals extends no further back than the last four years; the periods under which they are calculated having been altered in 1842, to assimilate them to the quinquennial periods adopted in the general census.

The two following Tables prove a decrease of the offenders classed under each of the several periods of age; but that the decrease has been much less on the class under 20 than on the class above that age. This is clearly shown by the increasing proportion of the offenders aged under 15 years, and aged 15 and under 20 years, and the decreasing proportion of those above that age.

Numbers Committed in the Years.....	1842	1843	1844	1845
Aged under 15 years	1,672	1,670	1,596	1,549
„ 15 and under 20 years.....	6,884	6,725	6,190	5,850
„ 20 „ 25 „	7,731	7,200	6,399	5,881
„ 25 „ 30 „	4,781	4,419	3,924	3,471
„ 30 „ 40 „	5,274	4,839	4,079	3,805
„ 40 „ 50 „	2,592	2,399	2,202	1,987
„ 50 „ 60 „	1,183	1,044	1,049	874
„ 60 years and above	573	547	524	418
Ages not ascertained	619	748	579	468

Centesimal Proportion in the Years..	1842	1843	1844	1845	Census of 1841.
Aged under 15 years	5·3	5·7	6·0	6·4	36·0
„ 15 and under 20 years	22·0	22·7	23·3	24·1	9·9
„ 20 „ 25 „	21·7	24·3	24·1	24·2	9·7
„ 25 „ 30 „	15·3	14·9	14·9	14·3	8·0
„ 30 „ 40 „	16·8	16·4	15·3	15·6	12·9
„ 40 „ 50 „	8·3	8·1	8·3	8·2	9·6
„ 50 „ 60 „	3·8	3·5	3·9	3·6	6·4
„ 60 years and above.....	1·8	1·9	2·0	1·7	7·2
Ages not ascertained	2·0	2·5	2·2	1·9	0·3

The increasing proportion of Female offenders, which has been remarked in former Tables, still continues. During the time of the great increase of the commitments, this proportion increased in a higher ratio; and it has not decreased in an equal ratio in the last three years of decreasing commitments. Thus there appears to be an almost uninterrupted increase in the proportion of Female offenders; for the sudden decrease in 1842 is peculiar to that year, and is caused by the commitment of 1,141 persons for seditious offences, who were all males.

Years.	No. of Females.	Centesimal Proportion.	Years.	No. of Females.	Centesimal Proportion	Years.	No. of Females.	Centesimal Proportion.
1837	4,205	21·6	1840	5,212	23·7	1843	5,340	22·0
1838	4,189	22·1	1841	5,200	23·0	1844	4,993	23·1
1839	4,612	23·2	1842	5,569	21·6	1845	4,962	25·6

The increase in the first of the above three years, 1837-39, was comprised of 20·8 per cent. females, and 8·9 per cent. only of males. In the second three years, 1840-42, which includes the seditious offences, 23·3 per cent. of females, and 20·8 per cent. of males. The decrease in the last three years, 1843-45, was females 4·3 per cent., and males 7·2 per cent.

The information with respect to the instruction received by the persons committed shows, as in former years, that the proportion of

those who have been entirely without instruction continues to decrease, and the proportion of those who have received the first elements of instruction to increase in nearly the same ratio,—a result which must be attributed to the increasing diffusion of education, of which it is a proof. The following figures show the relative proportion in each of the last nine years:—

Degrees of Instruction.	1837	1838	1839	1840	1841	1842	1843	1844	1845
Unable to read and write..	35·85	34·40	33·53	33·32	33·21	32·35	31·00	29·77	30·61
Able to read and write } imperfectly	52·08	53·41	53·48	55·57	56·67	58·32	57·60	59·28	56·34
Able to read and write well	9·46	9·77	10·07	8·29	7·40	6·77	8·02	8·12	8·38
Instruction superior to } reading & writing well }	0·43	0·34	0·32	0·37	0·45	0·22	0·47	0·42	0·37
Instruction could not be } ascertained	2·13	2·08	2·60	2·45	2·27	2·34	2·91	2·41	2·30

The centesimal proportion of the different degrees of instruction in the last three years of decreasing commitments is compared, in the following Table, with the two previous periods of three years of increasing commitments;—

Degrees of Instruction.	1837-39.	1840-42.	1842-45.
Unable to read and write	34·58	32·93	30·48
Able to read and write imperfectly	52·99	56·93	58·38
Able to read and write well	9·77	7·46	8·14
Instruction superior to reading and writing well	0·36	0·34	0·44
Instruction could not be ascertained	2·30	2·34	2·56

From the preceding Table, it is clear that the increasing proportion of criminals who have received the first elements of instruction suffered no interruption during the great decrease of commitments in the last three years. This is an additional proof, were such necessary, that instruction is unconnected with the causes which lead to crime; and that the increase in the proportion of instructed criminals must, as already stated, be referred to the progress of instruction among the classes from which the criminals come. The Table exhibits another important fact,—that in the three years, 1840-42, a period of much suffering to the labouring classes, when distress may have led many, who would have withstood ordinary temptations, to the commission of crime, the rate of increase of those who had received the first degree of instruction was more than double what it had been in the three antecedent, or in the three succeeding years; but the rate of decrease of those who were entirely uninstructed continued the same.

WHITEHALL, 4th April, 1846.

PROCEEDINGS OF THE STATISTICAL SOCIETY OF LONDON.

Fourth Ordinary Meeting, 1845-6. Monday, 16th February 1846.

The following gentlemen were elected Fellows:—

Rev. Dunbar S. Halkett. | Thomas B. Stephen, Esq.

The following gentlemen were proposed for election into the Society:—

John Sayres, Esq. | Thomas Wigglesworth, Esq.

The following paper was read:—

The Influence of Prices of Wheat on Mortality. By William Farr, Esq., F.S.S.

Fifth Ordinary Meeting, 1845-6. Monday, 16th March, 1846.

The following gentlemen were elected Fellows:—

John Sayres, Esq. | Thomas Wigglesworth, Esq.

The following paper was read:—

On the Principles of Railway Management, and on the profitable increase in the Traffic produced by great reductions in the Charges. By J. Butler Williams, Esq., F.S.S., F.G.S.

Sixth Ordinary Meeting, 1845-6. Monday, 20th April, 1846.

The following gentlemen were proposed for election into the Society:—

Robert Peake, Esq. | William Shirreff, Esq.

The following paper was read:—

The Criminal Courts of the Metropolis, and their Operation. By Joseph Fletcher, Esq., Honorary Secretary.

Seventh Ordinary Meeting, 1845-6. Monday, 18th May, 1846.

The following gentlemen were elected Fellows:—

Robert Peake, Esq. | William Shirreff, Esq.

The following papers were read:—

1. Prevalence and Alleged Increase of Scrofula. By Benjamin Phillips, Esq., F.R.S., F.S.S., &c.
2. Mortality of the Madras Army from Official Records. By Lieut.-Colonel Sykes, F.R.S.

MISCELLANEOUS.

STATE OF THE PUBLIC HEALTH IN THE QUARTER.

“THE Quarterly Returns are obtained from 115 Districts, sub-divided into 576 Sub-Districts. *Thirty-four* Districts are placed under the Metropolis, and the remaining 81 Districts comprise, with some agricultural Districts, the principal towns and cities of England. The population was 6,579,693 in 1841.”

43,708 deaths were registered in the last winter quarter (ending March 31st). This number is less by 6166 than the number (49,874) registered in the winter quarter of 1845. If the increase of the population (about 1·74 per cent. annually) be taken into account, the mortality will also be found to have been less in the last winter than in any of the eight previous winters. This marked diminution of the

mortality occurred in more than two-thirds of the Districts from which returns are procured; but is most obvious in the Metropolis, in the Western and North-Western Divisions. In the Districts of the Northern Division, alone, of England, the mortality was considerably higher than in the winters of 1844 and 1845; and this is referred by the Registrars to epidemics of Scarlatina in Sunderland, Tynemouth, and Carlisle.

The annexed Table shews that the mortality was considerably above the average in the winter quarters (ending March 31st) of 1838, 1840, 1841, and 1845,—and much below the average of the winter quarters of 1843, 1844, and 1846.

	1838	1839	1840	1841	1842	1843	1844	1845	1846
Deaths Registered in the March quarters of 9 years	15,783	42,258	46,206	46,809	44,746	43,620	45,965	49,874	43,708
Deaths which would have been registered if the mortality had been uniform, and the numbers had increased from 1838 at the rate of 1·74 per cent. annually	12,392	43,131	43,889	44,657	45,438	46,233	47,012	47,865	48,703
UNHEALTHY YEARS. Difference above the calculated number...	3,391	..	2,317	2,152	..	..	..	2,009	..
HEALTHY YEARS. Difference below the calculated number...	..	876	..	..	692	2,613	1,077	..	4,995

Temperature, the command of food by the working-classes, epidemics, and the general condition of the streets and dwellings, have all a certain effect on the rates of mortality; but there can be little doubt that the low mortality in the present Table is to be ascribed to the extraordinary mildness of the winter of 1846. The mean temperature at the Greenwich Observatory was nearly 5 degrees above the average of 25 years, 8 degrees above the average temperature of the winter of 1845. The mean temperature of the week ending February 14th was 36 degrees; of the week ending March 21st, 38 degrees; of all the other eleven weeks in the quarter the mean temperature was 40 degrees and upwards. The south-west winds prevailed; the fall of rain at Greenwich was nearly 6 inches; 10·26 inches of rain fell at Helston, 13·35 inches at Truro, only 1·92 inches at Newcastle-on-Tyne. (*See Meteorological Table, p. 5.*)

The effects of temperature in the *Metropolis* are shewn by the annexed Tables.

Deaths in the Metropolis from all Causes, exclusive of Violent and Sudden Deaths.

Number of Weeks	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	
Winter Quarter ..	1845	1320	1089	990	976	970	963	1082	1097	1097	1079	1034	1132	1115
	1846	1033	942	1003	874	873	883	858	907	894	829	874	832	988
Mean Temperature	1845	37·6	40·3	40·8	39·5	32·4	33·4	29·3	31·1	37·5	29·3	29·1	33·5	47·0
	1846	40·8	40·8	41·6	43·9	47·7	43·7	36·2	44·1	51·7	47·6	44·2	38·2	42·9

THE METROPOLIS.—The deaths by Small-pox were 77, and ranged from 3 to 9, weekly. In 1845, 481 persons died of Small-pox. *Measles* was the prevailing epidemic at the beginning, *Whooping Cough* at the end of the quarter. *Typhus*, though more prevalent than in the winters of 1810, 1841, and 1842, was much less fatal than in the winters of 1839 and 1843.

MORTALITY OF THE COUNTRY.

Quarterly Table of the Mortality in 115 of the Districts of England (including the Principal Towns), showing the Number of Deaths Registered in the Quarters ending March 31st of the Four Years 1843-44-45-46.

Parts of Divisions and Districts.	Popula- tion 1841.	Deaths Registered in the Quarters ending March 31st.				Parts of Divisions and Districts.	Popula- tion 1841.	Deaths Registered in the Quarters ending March 31st.			
		Years.						Years.			
		1843.	1844.	1845.	1846.			1843.	1844.	1845.	1846.
<i>Metropolis*.</i>						<i>North Midland Division.</i>					
West Districts..	301,326	1,799	1,975	2,240	1,867	Leicester	50,932	367	415	446	342
North Districts..	366,303	2,407	2,480	2,781	2,285	Lincoln	36,110	202	242	196	203
Central Districts	374,759	2,382	2,547	2,767	2,156	Nottingham....	53,080	376	385	479	293
East Districts ..	393,247	2,718	2,975	2,976	2,503	Basford	59,634	377	328	848	344
South Districts..	479,469	3,198	3,494	3,764	3,565	Derby	35,615	223	266	250	282
Total †.....	1,915,104	12,504	13,471	14,528	12,376	Total	234,771	1,545	1,636	1,719	1,470
<i>South Eastern Division.</i>						<i>North Western Division.</i>					
Maidstone	32,310	219	218	235	141	Stockport	85,672	700	477	723	562
Brighton	46,742	315	329	262	211	Macclesfield ..	56,018	537	393	483	387
Isle of Wight ..	42,547	182	207	228	178	Great Brough- ton (including Chester)	49,085	309	345	365	279
Portsea Island ..	53,036	344	344	388	290	Liverpool	223,054	1,863	1,996	1,816	1,934
Winchester	23,044	133	170	149	107	West Derby (adjoining Liverpool) ..	88,652	567	575	673	746
Windsor	20,502	89	123	98	75	Blackburn	75,091	626	514	654	546
Total	218,181	1,282	1,391	1,360	1,002	Preston	77,189	509	506	643	566
<i>South Midland Division.</i>						Rochdale	60,577	413	479	503	560
St. Albans	17,051	91	109	122	74	Bury	77,496	530	613	558	605
Wycombe	34,150	212	239	229	218	Bolton	97,519	754	678	822	817
Oxford	19,701	96	108	110	75	Wigan	66,032	415	611	452	538
Northampton ..	28,103	178	211	249	186	Prescott	43,739	278	241	262	237
Bedford	31,767	217	236	208	172	Chorlton	93,736	551	622	868	699
Cambridge	24,453	140	223	154	139	Manchester	192,408	1,649	1,541	1,934	1,527
Total	155,225	934	1,131	1,072	864	Salford	70,228	588	502	497	512
<i>Eastern Division.</i>						Ashton	173,964	1,314	1,245	1,663	1,413
Colchester	17,790	104	126	117	123	Total	1,530,460	11,603	11,268	12,916	11,928
Ipswich	23,254	145	174	124	159	<i>York Division.</i>					
Norwich	61,846	379	425	708	325	Sheffield	85,076	582	579	651	611
Yarmouth	24,031	148	196	165	232	Huddersfield ..	107,140	662	607	701	629
Total	128,921	776	931	1,114	839	Halifax	102,175	685	670	738	794
<i>South Western Division.</i>						Bradford	132,164	795	949	1,120	1,003
Devizes	22,120	186	148	156	83	Leeds & Hunslet†	168,067	1,135	1,088	1,228	996
Dorchester	23,380	136	166	123	107	Hull	41,130	254	327	261	309
Exeter	31,333	214	262	208	202	York	47,779	266	272	322	336
St. Thomas	47,105	220	249	231	226	Total	691,131	4,379	4,492	5,021	4,678
Plymouth	36,527	274	269	261	191	<i>Northern Division</i>					
Redruth	48,062	254	271	272	220	Sunderland	56,226	315	306	335	490
Penzance	50,100	283	239	234	234	Gateshead	38,747	246	216	252	255
Bath	69,232	408	507	520	388	Tynemouth	55,625	337	334	300	318
Total	327,869	1,975	2,111	2,005	1,654	Newcastle-on- Tyne.....)	71,850	565	435	466	567
<i>Western Division.</i>						Cathisle	36,084	193	271	215	248
Bristol	64,298	503	464	563	427	Cockermouth ...	35,476	191	184	221	213
Clifton	66,233	380	424	448	376	Kendal	34,694	173	223	218	223
Stroud	38,920	272	267	235	189	Total	328,902	2,020	1,969	2,007	2,314
Cheltenham	40,221	241	228	267	215	<i>Welsh Division.</i>					
Hereford	34,427	250	244	242	208	Abergavenny ...	50,834	319	472	410	327
Shrewsbury	21,529	148	163	164	112	Pontypool	25,037	175	142	139	210
Worcester	27,139	155	214	173	153	Merthyr Tydfil ..	52,864	318	567	508	465
Kidderminster ...	29,408	170	242	233	150	Newtown	25,958	130	145	152	129
Dudley	86,028	474	547	776	588	Wrexham	39,542	275	266	238	207
Walsall	34,274	215	197	260	259	Holywell	40,787	259	293	312	263
Wolverhampton ...	89,722	467	540	648	574	Anglesey	38,105	174	202	229	207
Wolstanton	32,669	271	247	276	239	Total	273,127	1,653	2,047	1,988	1,739
Birmingham	138,187	895	1,118	1,275	876	Ditto, exclu- sive of the Metropolis ..	4,664,589	31,116	32,494	35,346	31,332
Aston	50,328	263	349	353	265	Grand Total ..	6,579,693	43,620	45,365	49,874	43,708
Coventry	31,028	265	234	271	213						
Total	776,002	4,949	5,418	6,144	4,844						

* The last quarter in the Metropolis ended March 28th, 1846.

† Wandsworth District is included in the return for the Metropolis.

‡ The former District of Leeds is now divided into the districts of *Leeds* and *Hunslet*, both included in the present return.

MORTALITY OF THE METROPOLIS.

A Table of the Mortality in the Metropolis, showing the Number of Deaths from all Causes, in the Quarters ending March 31st of the Four Years, 1843-44-45-46.

CAUSES OF DEATH.	Quarters ending March.				CAUSES OF DEATH.	Quarters ending March.			
	1843.	1844.	1845.	1846.		1843.	1844.	1845.	1846.
ALL CAUSES.....	12,504	13,471	14,528	12,376	III. Cephalitis.....	132	160	149	153
SPECIFIED CAUSES.....	12,463	13,403	14,491	12,322	Hydrocephalus.....	418	481	460	488
I. Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	2,099	2,457	2,506	2,277	Apoplexy.....	264	301	343	329
SPORADIC DISEASES.					Paralysis.....	239	281	298	273
II. Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	1,432	1,282	1,450	1,273	Convulsions.....	742	702	696	511
III. Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	2,048	2,177	2,193	2,046	Tetanus.....	3	8	3	7
IV. Diseases of the Lungs and of the other Organs of Respiration.....	4,048	4,644	4,923	3,507	Chorea.....	3	3	2	..
V. Diseases of the Heart and Blood Vessels.....	323	416	512	455	Epilepsy.....	64	57	62	73
VI. Diseases of the Stomach, Liver, and other Organs of Digestion.....	781	795	981	940	Insanity.....	6	22	15	21
VII. Diseases of the Kidneys, &c.....	69	93	115	130	Delirium Tremens.....	21	19	24	34
VIII. Childbirth, Diseases of the Uterus, &c.....	158	114	174	150	Disease of Brain, &c.....	159	143	141	157
IX. Rheumatism, Diseases of the Bones, Joints, &c.....	79	74	98	121	IV. Laryngitis.....	9	9	23	35
X. Diseases of the Skin, Cellular Tissue, &c.....	23	23	12	53	Quinsy.....	21	17	25	10
XI. Old Age.....	1,111	1,018	1,127	612	Bronchitis.....	254	444	632	758
XII. Violence, Privation, and Intemperance.....	292	310	400	458	Pleurisy.....	23	24	28	33
I. Small Pox.....	145	252	481	7	Pneumonia.....	1,168	1,327	1,296	946
Measles.....	272	334	381	401	Hydrothorax.....	76	102	92	50
Scarlatina.....	299	536	421	221	Asthma.....	458	555	606	244
Whooping Cough.....	509	487	411	767	Phthisis or Consumption.....	1,787	1,904	1,972	1,571
Croup.....	110	107	112	79	Disease of Lungs, &c.....	252	262	249	160
Thrush.....	41	45	50	35	V. Pericarditis.....	9	24	33	17
Diarrhoea.....	69	79	109	119	Aneurism.....	10	9	21	18
Dysentery.....	33	29	14	20	Disease of Heart, &c.....	304	383	458	420
Cholera.....	6	4	4	7	Teething.....	225	157	227	129
Influenza.....	28	66	34	22	Gastritis.....	173	119	141	24
Ague.....	5	5	5	4	Enteritis.....	16	30	44	48
Remittent Fever.....	5	6	5	15	Peritonitis.....	73	100	116	139
Typhus.....	508	432	362	410	Tabes Mesenterica.....	3	3	8	19
Erysipelas.....	57	61	95	71	Worms.....	8	21	24	29
Syphilis.....	12	12	21	28	Ulceration (of Intestines, &c.).....	17	21	25	36
Hydrophobia.....	..	2	1	1	Hernia.....	27	34	31	35
II. Inflammation.....	50	18	..	..	Colic or Ileus.....	22	37	38	36
Hæmorrhage.....	33	50	29	24	Intussusception.....	1	6	4	9
Dropsy.....	470	392	413	145	Stricture.....	6	6	6	8
Abscess.....	40	23	10	18	Hæmatemesis.....	3	11	14	13
Noma.....	..	..	3	9	Disease of Stomach, &c.....	42	66	68	78
Mortification.....	55	49	53	44	Disease of Pancreas.....	..	..	..	..
Purpura.....	2	5	2	5	Hepatitis.....	13	16	22	49
Scrofula.....	23	36	40	75	Jaundice.....	35	28	32	34
Cancer.....	93	141	134	235	Disease of Liver, &c.....	117	97	131	131
Tumour.....	22	13	5	3	Disease of Spleen.....	..	2	..	6
Gout.....	18	14	4	3	VII. Nephritis.....	5	3	6	10
Atrophy.....	94	150	189	224	Ischuria.....	1	1	..	2
Debility.....	205	214	270	300	Diabetes.....	6	8	12	4
Malformations.....	15	23	31	51	Cystitis.....	2	6	3	3
Sudden Deaths.....	222	174	207	137	Stone.....	4	6	6	3
					Stricture.....	11	14	13	17
					Disease of Kidneys, &c.....	40	55	75	91
					VIII. Childbirth.....	112	80	133	101
					Parametria.....	4	..	5	3
					Ovarian Dropsy.....	10	7	6	16
					Disease of Uterus, &c.....	32	27	30	30
					IX. Arthritis.....	..	1	4	3
					Rheumatism.....	38	31	35	62
					Disease of Joints, &c.....	41	42	59	56
					X. Carbuncle.....	..	3	..	1
					Phlegmon.....	..	..	2	9
					Ulcer.....	7	11	4	16
					Fistula.....	7	6	1	9
					Disease of Skin, &c.....	9	3	5	18
					XI. Old Age.....	1,111	1,018	1,127	612
					XII. Intemperance.....	10	11	15	17
					Privation.....	8	7	8	7
					Violent Deaths.....	274	292	377	434
					Causes not specified.....	41	68	37	54

QUARTERLY METEOROLOGICAL TABLE,
Compiled from the Weekly Tables furnished to the Registrar-General by the Astronomer Royal.

[illegible]

* In reading the 20th column, it will be borne in mind that $+$ is read "higher," and $-$ is read "lower," than the average.

+ Mean of the last six weeks.

REVENUE.

An Abstract of the Net Produce of the Revenue of Great Britain in the Years and Quarters ending 5th April, 1845 and 1846; showing the Increase or Decrease thereof.—(Continued from page 93, of vol. IX.)

Sources of Revenue.	Years ending 5th April.			
	1845.	1846.	Increase.	Decrease.
	£	£	£	£
Customs.....	20,176,731	17,664,618	....	2,512,113
Excise	12,224,907	11,886,085	....	338,822
Stamps	6,714,840	7,095,521	380,681	....
Taxes	4,217,748	4,224,039	6,291	....
Property Tax	5,104,448	5,084,741	....	19,707
Post Office.	679,000	768,000	89,000	....
Crown Lands	125,000	130,000	5,000	....
Miscellaneous	1,067,354	939,747	....	127,607
Total Ordinary Revenue	50,310,028	47,792,751	480,972	2,998,249
Imprest and other Moneys .	429,901	170,846	....	259,055
Repayments of Advances....	1,067,774	1,516,887	449,113	....
Total Income.....	51,807,703	49,480,484	930,085	3,257,304
Deduct Increase.....				930,085
Decrease on the Year.....				2,327,219

Sources of Revenue.	Quarters ending 5th April.			
	1845.	1846.	Increase.	Decrease.
	£	£	£	£
Customs	4,402,506	3,961,918	....	440,588
Excise	1,917,485	1,626,458	....	291,027
Stamps	1,742,461	1,685,868	....	56,593
Taxes	145,945	146,142	197	....
Property Tax	1,905,711	1,963,882	58,171	....
Post Office.....	178,000	215,000	37,000	....
Crown Lands.....	35,000	45,000	10,000	....
Miscellaneous	415,016	91,522	....	323,494
Total Ordinary Revenue	10,742,124	9,735,790	105,368	1,111,702
Imprest and other Moneys	206,007	52,909	....	153,098
Repayments of Advances	418,545	456,473	37,928	....
Total Income	11,366,676	10,245,172	143,296	1,261,800
Deduct Increase				143,296
Decrease on the Quarter				1,121,504

Consolidated Fund Operations.—The total income brought to this account in the quarter ending 5th April, 1846, was 10,260,514*l.*; the total charge upon it was 8,477,206*l.*; leaving a surplus of 1,783,308*l.* The amount of Exchequer Bills issued to meet the charge on the Consolidated Fund for the quarter ending 5th January, 1846, and paid off out of the growing produce of that fund for the quarter ending 5th April, 1846, after deducting 280,000*l.* paid off out of the Sinking Fund, was 291*l.* The probable amount of Exchequer Bills required to meet the charge on the Consolidated Fund in the quarter ending 5th April, 1846, is stated at 2,953,800*l.*

CORN.

Average Prices of Corn per Imperial Quarter in England and Wales, with the Rate of Duty on Foreign and Colonial Wheat, during each Week of the First Quarter of 1846; together with the Average Prices for the whole Quarter.—(Continued from p. 94, of vol. ix.)

Returns received at the Corn Office, 1846.	Wheat.		Barley.	Oats.	Rye.	Beans.	Peas.	Date of Certificates of preceding Prices, regulating Duties for the Week ensuing.	Duties on Wheat per Quarter.	
	Weekly Average	Aggregate Average of Six Weeks regulating Duty.	Weekly Average	Weekly Average	Weekly Average	Weekly Average	Weekly Average		From Foreign Countries.	From British Possessions out of Europe.
Weeks ending 1846.	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>		<i>s. d.</i>	<i>s. d.</i>
Jan. 3 .	55 1	57 6	31 11	22 3	33 6	37 9	39 1	Jan. 8	15 0	2 0
10 .	56 3	57 2	31 10	21 9	33 11	36 8	38 11	15	15 0	2 0
17 .	56 2	56 8	31 11	22 3	34 9	36 9	39 3	22	16 0	3 0
24 .	55 7	56 1	31 8	21 10	37 8	36 1	36 8	29	16 0	3 0
31 .	51 8	55 6	31 3	21 10	32 0	35 6	35 8	Feb. 5	17 0	4 0
Feb. 7 .	51 3	55 4	30 10	21 7	34 2	35 9	35 6	12	17 0	4 0
14 .	51 9	55 3	30 6	21 9	32 7	34 9	35 7	19	17 0	4 0
21 .	55 0	55 1	29 11	21 6	32 10	34 9	34 3	26	17 0	4 0
28 .	51 6	51 9	29 7	21 5	33 1	34 2	35 2	March 5	18 0	5 0
March 7 .	51 10	51 8	29 3	21 10	33 6	31 11	33 8	12	18 0	5 0
14 .	51 3	51 7	29 4	21 6	34 2	35 2	34 9	19	18 0	5 0
21 .	55 1	51 9	29 10	22 0	33 10	34 4	33 1	26	18 0	5 0
28 .	55 5	51 10	30 2	22 1	31 0	35 0	33 3	April 2	18 0	5 0
Average of the Quarter	55 0		30 7	21 10	33 10	35 6	35 9	..		

Foreign and Colonial Wheat and Wheat-Flour imported in each of the Months ending 5th January, 5th February, and 5th March, 1846; the Quantities upon which Duties have been paid for Home Consumption during the same Months; and the Quantities remaining in Bond at the close of them.—(Continued from p. 94, of vol. ix.)

WHEAT.

Months ending.	Imported.			Paid Duty.			In Bond at the Month's end.		
	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.
1846	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.
5th Jan.	160,909	12,116	173,325	8,098	9,022	17,220	941,118	3,111	947,992
5th Feb.	100,691	1,370	105,061	3,032	2,918	5,950	1,055,651	6,129	1,061,780
5th Mar.	89,379	37	89,415	1,211	572	1,813	1,133,356	5,594	1,138,950

WHEAT-FLOUR.

Months ending.	Imported.			Paid Duty.			In Bond at the Month's end.		
	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.
1846	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.
5th Jan.	82,010	70,417	152,157	2,177	46,668	48,845	451,165	57,168	508,633
5th Feb.	113,030	26,521	169,551	756	13,159	14,216	604,476	81,338	685,814
5th Mar.	177,132	5,758	182,890	239	21,536	21,775	771,909	65,446	837,355

CURRENCY.

BANK OF ENGLAND.

An Account, pursuant to the Act of the 7th and 8th Victoria, c. 32, for the Weeks ending on Saturday, the 31st January, the 28th February, and 28th March, 1846.—(Continued from p. 95, vol. IX.)

ISSUE DEPARTMENT.

	Weeks ending,		
	31st Jan., 1846.	28th Feb., 1846.	28th Mar., 1846.
	£	£	£
Notes issued	26,587,355	27,015,295	27,269,245
Government Debt	11,015,100	11,015,100	11,015,100
Other Securities	2,984,900	2,984,900	2,984,900
Gold Coin and Bullion	11,028,945	11,353,065	11,558,964
Silver Bullion	1,558,410	1,662,230	1,710,281
Total	26,587,355	27,015,295	27,269,245

BANKING DEPARTMENT.

Proprietors' Capital	14,553,000	14,553,000	14,553,000
Rest	3,451,151	3,689,430	3,789,971
Public Deposits	4,389,810	6,296,535	7,319,625
Other Deposits	17,036,830	18,647,068	17,103,928
Seven Day and other Bills	987,102	947,432	953,579
Total	40,417,893	44,133,465	43,720,103
Government Securities, including Dead Weight Annuities	13,137,047	13,136,440	13,136,731
Other Securities	21,466,997	23,242,035	22,181,392
Notes	5,112,860	6,994,485	7,683,690
Gold and Silver Coin	700,989	760,505	718,290
Total	40,417,893	44,133,465	43,720,103

COUNTRY BANKS.

Average Aggregate Amount of Promissory Notes of Country Banks, which have been in Circulation in the United Kingdom, distinguishing the several Banks, or Classes of Banks, by which issued in each part of the Kingdom, during the weeks ending 31st January, 28th February, and 28th March, 1846.—(Continued from p. 95, vol. IX.)

Banks.	31st January, 1846.	28th February, 1846.	28th March, 1846.
England—Private Banks	4,514,057	4,168,212	4,515,354
Joint Stock Banks	3,254,202	3,108,525	3,176,655
Scotland—Chartered, Private, and Joint Stock Banks	3,182,255	3,082,792	3,018,681
Ireland—Bank of Ireland	4,395,975	4,304,370	4,257,200
Private and Joint Stock Banks	3,104,776	3,165,579	3,187,760
Total	18,361,265	18,139,258	18,155,650

BANKRUPTCY.

An Analysis of the Bankruptcies in England and Wales, gazetted in each Month of the Quarter ending March 31, 1846; showing the Counties and Branches of Industry in which they have occurred.—(Continued from p. 96, vol. IX.)

COUNTIES.	January.	February.	March.	TRADES.	January.	February.	March.
Metropolis	38	34	26	<i>Agriculture and connected Trades.</i>			
Bedford			1	Farmers	1		1
Berks			1	Agricultural Implement Makers, &c.			
Bucks.		1		Corn Factors	1	2	1
Cambridge			2	Millers and Malsters	2	3	1
Cheshire		2		Hop Merchants			
Cornwall	1	2	1	Brewers	1		2
Cumberland		1		Horse and Cattle Dealers, and Woolstaplers	2	2	2
Derby		1	1	<i>Mining and connected Trades.</i>			
Devon	5	1	3	Mining Firms			
Dorset		1	1	Blasting Works			
Durham	2			<i>Manufactures.</i>			
Essex		2	1	Woollen Manufacturers	10	3	3
Gloucester	5	3	4	Cotton	1	3	3
Hants.	8	1	2	Linen	1	3	3
Hereford			1	Silk	1	2	
Hertford	5	1	1	Printers and Dyers	3		
Huntingdon				Lace Manufacturers	1		
Kent	3	2	4	Hosiery			
Lancashire	17	16	20	Hardware	1	1	2
Leicester				Earthenware			
Lincoln	1	1		Glass			
Middlesex (exclusive of the Metropolis) }	6	4	2	Paper			1
Monmouth	1		1	Builders	13	2	3
Norfolk	2	1	1	Miscellaneous Manufacturers	21	10	18
Northampton				<i>Commerce.</i>			
Northumberland	3	2	1	Bankers and Merchants	8	3	6
Nottingham	2	1		Shipowners, Warehousemen, Brokers, and Wholesale Dealers generally	18	15	12
Oxford			2	<i>Retail and Handicraft Trades.</i>			
Rutland				Bakers	1		2
Salop		2	1	Butchers		2	1
Somerset (including Bristol) }	5	4	3	Corn and Hay Dealers			
Stafford	4	1	1	Junkeopers and Victuallers	11	5	4
Suffolk	2	3	3	Wine and Spirit Merchants	4	3	1
Surrey (exclusive of the Metropolis) }	1	1	1	Dealers in Grocery, Drugs, and Spices	8	7	10
Sussex			3	Makers of, and Dealers in, Clothing	4	6	6
Warwick	3	4	5	Makers of, and Dealers in, Furniture	1	3	1
Westmorland				Coach Builders		1	
Wilts				Miscellaneous	19	30	23
Worcester	2	3					
York (East Riding)	6	1	1				
„ (North Riding)	1	2					
„ (West Riding)	8	5	8				
Wales	2	3	4				
Total	133	106	106	Total	133	106	106

QUARTERLY JOURNAL

OF THE

STATISTICAL SOCIETY OF LONDON.

OCTOBER, 1846.

Oxford University Statistics. By JAMES HEYWOOD, Esq., F.R.S.

[Read before the Statistical Section of the British Association for the Advancement of Science, 11th September, 1846.]

A REMARKABLE proof of the interest felt by eminent statesmen in the ancient universities was afforded, some months ago, in the preparation of a memorial to the Vice-Chancellor and Heads of Houses in Oxford for university extension. This memorial obtained the signatures of Lords Sandon, Ashley, Robert Grosvenor, Westminster, Carnarvon, Lincoln, Canning, and Mahon, Sir Thomas Acland, Bart., M.P., the Hon. and Very Rev. Dr. Herbert, Dean of Manchester, Hon. and Rev. Horace Powys, Hon. Sidney Herbert, M.P., and the present Bishop of Oxford, (at that time the Very Rev. Dr. Wilberforce, Dean of Westminster): it was also signed by the Right Hon. W. E. Gladstone, M.P., Right Hon. Henry Labouchere, M.P., and Messrs. T. D. Acland, M.P., Philip Pusey, M.P., W. B. Baring, and J. Wilson Patten, M.P.

Among such distinguished names in public life, many had also obtained the highest academical honours in Oxford itself. Thus, Lord Sandon took a double first class degree in 1819; Mr. Labouchere was in the first class in 1820; Lord Ashley obtained a similar honour in 1822, four years afterwards Dr. Wilberforce was in the second class in classics, and the first class in mathematics. In 1831 Mr. T. D. Acland took a double first class degree, and in the following year the same honourable reward of intellectual exertion was obtained by Mr. William Ewart Gladstone.

The principal object of the memorialists appears to have been the "rendering academical education accessible to the sons of parents whose incomes were too narrow for the scale of expenditure at present prevailing among the junior members of the University of Oxford," but these eminent men also deemed it right to express their opinion generally on the subject of the ancient universities in the following emphatic terms:—

"Our universities take up education where our schools leave it, yet no one can say that they have been strengthened or extended, whether for clergy or laity, in proportion to the growing population of the country, its increasing empire, or deepening responsibilities."

The result of this memorial was a Report from a Committee appointed among the resident graduates of the University, which was published in March, 1846, and contained the extraordinary intelligence, that the number of annual matriculations at Oxford has, on the whole, decreased of late years; and this too, notwithstanding the manifest increase of wealth and population in the country.

During the ten years from 1819 to 1829, the number of matriculations at Oxford averaged 415 per annum, and in one year, 1824, the number rose to 444. From 1829 to 1839, the matriculations only averaged 385 per annum, and in the seven years following, 1839 to 1845, their number was 407 per annum, being an average decrease of 8 per annum from the previous period of 1819 to 1829.

Several of the larger colleges at Oxford, as, for instance, Christ Church and Oriel, are always crowded with students, but many of the smaller colleges have not obtained by any means an equal share of public favour, and the students are not usually anxious to enter themselves in these minor institutions; consequently, there is still accommodation in some of the colleges for additional students.

The undergraduates of Oxford are generally intended in after life, either for the church, the bar, or the senate, or they belong by birth to the class of landed proprietors or wealthy merchants, and may subsequently find themselves at the head of great practical interests in their own localities, as possessors of large estates, extensive mines, long lines of canals, or a preponderating influence in particular railroads in their own neighbourhood.

Schoolmasters for grammar-schools also very frequently receive their education at Oxford; and as the colleges of the University are supplied with a large proportion of their pupils from the great public schools, much of the classical instruction usual in those seminaries occupies the chief share of attention at the University.

Progression is thus rendered extremely difficult in the Oxford educational system. A young boy is instructed at a public school in Latin and Greek composition; he reads Greek plays, and becomes familiar with Thucydides. At Oxford he finds all these school subjects admitted as essential requisites for academical honours. Aristotle he has to read in addition, and thus fortified, with a little more classical study, and some acquaintance with logic and divinity, he takes a respectable degree, obtains a fellowship at his college, and is transferred again, as a master, to some public school, to carry on the same round of instruction among the youth of the next generation.

Mathematics are very little read at Oxford. "To follow scientific study," observes Professor Powell, "is purely optional; and the average of those who evince any degree of acquaintance with it is about 1 in 11 or 12."

A voluntary mathematical examination takes place at Oxford twice in every year after the degree examination, and the numbers of mathematical classmen may be estimated as follows:—

Voluntary Mathematical Honours.

		1st Class.	2nd Class.	3rd Class.	4th Class.	Total.
1840.	Easter	1	1	2	4	} 21
	Michaelmas....	3	4	2	4	
1841.	Easter	6	2	1	7	} 27
	Michaelmas....	0	1	5	5	
1842.	Easter	6	2	2	4	} 27
	Michaelmas....	2	1	3	7	
1843.	Easter	4	2	1	4	} 22
	Michaelmas....	2	4	2	3	
1844.	Easter	1	1	1	8	} 26
	Michaelmas....	1	8	0	6	
1845.	Easter	5	3	4	7	} 36
	Michaelmas....	3	4	2	8	

Average for the six years, 26 per annum.

Various reasons may be assigned for this comparative indifference of the main body of Oxford undergraduates to voluntary mathematical examinations, but the principal one is probably to be found in the circumstance that such examinations are voluntary.

Formerly the public schools were said to be in fault; public school-boys did not learn mathematics, and so came up to college ignorant of the merest rudiments of algebra and Euclid, and but little inclined to commence their study. Rugby, however, under the late Dr. Arnold, and Eton, so far as the influence of the head master, Dr. Hawtrey, can assist, have adopted an improved system; but the generality of young men at college are not likely to read mathematics, unless they find scientific attainments valued in the University, and more especially deemed of some importance in the disposal of fellowships.

These numerous and tempting rewards of intellectual exertion must ever guide the severest studies of any university so richly endowed with them as Oxford; and it is of the greatest importance for the advancement of knowledge in this country, that the degree examination itself, which forms as it were the stepping-stone to the fellowship, should from time to time be modified, so that it may become as useful and beneficial as possible.

At present a knowledge of mathematics is not positively required for graduation at Oxford. Euclid may be and generally is exchanged for logic, and in the subsequent voluntary mathematical examination a fourth class may be obtained by a perfect knowledge of only four books of Euclid, and the first or elementary part of algebra.

Third-class men are expected to be familiar with the six books of Euclid, with algebra, plain and spherical trigonometry, and conic sections.

A second class requires in addition the differential and integral calculus, and some acquaintance with mechanics.

Astronomical questions and higher mechanical queries are given to the candidates for the first class, in addition to the more rudimentary branches already noticed; and altogether the knowledge required for a first class in mathematics at Oxford is about the same as that for the second class, or the Senior Optimes, at Cambridge.

The most serious examinations at Oxford are those for degrees, which are preceded by a minor examination, termed the *Little-go*, or *responsions*, given at the end of about a year and a half of academical residence.

College lectures are given every term to the undergraduates, in order to prepare them for the University examinations; and it is generally found most convenient to divide the pupils into two sets for the lectures, one including the more advanced students, who may afterwards compete for high academical honours, and the other comprising the less advanced, who may be content with passing the ordinary degree examination.

The books in which common degree men are usually lectured by their college tutors are the second half of Herodotus, the four Porson plays of Euripides, the second decade of Livy, and Horace or Juvenal. Lectures on Sophocles and Thucydides are attended both by class candidates and common degree men, but those on the higher classics, as Æschylus, Tacitus, &c., are intended especially for the class men. Courses of elementary and more advanced lectures are also given on logic, divinity, and Latin composition. Each lecture occupies an hour, and three lectures on each subject are given in the week, on alternate days. An undergraduate frequently attends three courses in a term, and may thus be in the lecture-room one or two hours in the day, and if regular in his attendance, nine hours in the week*.

Lectures are usually insisted upon more strictly for the common degree candidates, as they have not the same emulation to prompt them to exertion, and, besides, they require more superintendence, probably, in many cases, on account of their greater wealth, and of the amusements of hunting, shooting, billiards, &c., to which they frequently accustom themselves. It is usual for a college tutor at Oxford to appoint a portion of Latin composition to be written out by all the undergraduates under his own care once in every week, which is publicly brought up to him for inspection. Generally this exercise is a translation of English into Latin, but it is often varied by the tutors, and a Latin theme or essay substituted, the subject of which is left to be selected by the student.

At the end of every term is a sort of repetition examination in different studies, which is termed "*collections*." The undergraduates are requested to bring in for examination any book or books they may have been reading during term, whether lectures have been given on them or not; on this occasion the majority of students generally prefer the lecture subjects, with which they are most familiar. Exercises are also given in Latin composition, and some questions are asked on the ancient histories of Greece and Rome.

Responsions, or as they are colloquially termed, the "*Little-go*," occur about the spring or summer of the second year of residence in Oxford. In this first and comparatively easy university examination one Greek and one Latin book are taken up by each student, such, for instance, as the second half of Herodotus, or four plays of Sophocles or Euripides; and for more advanced students, four plays of Æschylus or Aristophanes, or the half of Thucydides. In Latin either Livy,

* For these details, as well as for valuable information contained in the subsequent part of this paper, I am much indebted to the kindness of an Oxford friend.

Horace, or Juvenal is frequently selected, and the class candidates sometimes take up Tacitus. Six books of Livy are deemed sufficient, or the Odes and *Ars Poetica* of Horace; and similarly six books of Tacitus's *Annals* will suffice.

The Little-go examination in classics is confined solely to construing and grammar; questions being asked which arise out of the passages given, and relate to verbal inflections, or the construction of the sentence: these questions are not of greater difficulty than those in an ordinary respectable grammar school. To class candidates, some few questions of wider scope, such as the dates of different Grecian dialects, are occasionally given, but mere correctness of rendering and of parsing is amply sufficient for success.

Latin composition, consisting of the translation of an easy passage of English, such as a piece out of the *Spectator*, is required at responsions. The absence of grammatical mistakes in this exercise, as in the foregoing, will always ensure a pass. Among the unsuccessful candidates, a large proportion fail in this department, having in many cases not been already accustomed to the classical drilling of a public school.

The three first parts of Aldrich's *Logic* form the remaining subject of the Oxford Little-go, for which students may if they wish it, substitute the three first books of Euclid's *Elements of Geometry*, but this is rarely done. Mathematics do not appear to be in very high estimation among the students of the university, and logic is absolutely required for class honours in the subsequent degree examination.

From six to a dozen or more questions on paper are given in logic, referring to different parts of Aldrich, and the student is expected to answer them in writing. If any of these are omitted, or are scantily answered, they are put again afterwards, *vivâ voce*, in an easier form, thus giving the candidate a fresh opportunity to prove his acquaintance with the subject. A good deal of preparation is necessary to ensure a pass in logic, and the majority of the failures at the Little-go, occur either in this department, or in that previously noticed of the Latin composition.

When the three first books of Euclid are taken up, in place of logic, the examination is often commenced in the second book; figures are supplied to the candidate, but if even with this assistance, he should be unable to demonstrate the propositions required, he is then questioned in the first or third book, as easier subjects. Some very superior scholars have failed in this department, not having probably received any mathematical instruction at the public school in which they had been previously educated.

About eight candidates are examined every day during the Little-go, and a day seldom passes without one at least being plucked out of this number: there are, however, rarely more than three unsuccessful in one day, although this varies according to the disposition of the examiners and the attainments of the students. There are three Little-go examinations during the year, in the Michaelmas, Lent, and Act (or June) terms. The average number of candidates varies from 130 to 210 on each occasion, and the examinations consequently last about three weeks or a month.

Students who have failed twice in the Little-go, usually remove from their college into a hall or institution without fellowships; at

Balliol, one failure is sufficient to disqualify a young man from remaining in college, while at Brazenose College, three failures are allowed before removal is insisted upon.

The name of polite literature, or "*literæ humaniores*," is given to the various classical and logical studies of the university of Oxford, though these subjects hardly include the essential parts of polite education, requisite at the present day to qualify a gentleman either for society, or for the business of public life.

At the ordinary degree examination, which occurs about a year and a half after the Little-go, Aldrich's *Logic*, including some acquaintance with Whately's valuable work, is usually a leading subject. On this occasion, queries are proposed in the different heads of dialectical science, and the student is requested to examine, discuss or correct syllogisms, arguments, and fallacies.

Four books of Euclid may be substituted for the *Logic*, but this is not often done. Latin composition, required for the ordinary degree, consists in the translation of a somewhat longer and more difficult portion of English into Latin, than that already noticed as a part of the Little-go. Unusual or modern words may also be found in this exercise, and when the student cannot express them suitably in Latin, he has no alternative but to leave blanks in his translation.

Extracts from the classical authors, which the students take up for examination, are set by the examiners, and the chief translations are made from them in writing.

Two Greek and one Latin book are required for the ordinary degree. Half of either of the Greek historians will suffice for the historical work in that language, or Xenophon's *Hellenics* or his *Memorabilia*. Twelve books of Homer may also be taken up. Four Greek tragedies usually form the second classical work for the ordinary degree examination. In Latin, on this occasion, the second decade of Livy is very commonly taken up, or Horace, or Juvenal, or sometimes the *Æneid* of Virgil, or his *Eclogues* and *Georgics*. Portions of Aristotle are professed by some of the more ambitious students.

Oral examination in ancient history forms a part of the common degree examination; the questions referring principally to important facts narrated by the respective Greek and Latin authors, testing at the same time the knowledge of the candidate in the political systems and revolutions of states, with which his classical reading may have rendered him familiar. The histories of Livy are frequently under consideration in this department, when that book is taken up by the student which is often the case. A little *viva voce* construing is also considered to be complimentary on the same day with the written exercises, but it is not usual for the examiners to ask for this, unless from students whose readiness and talent have been already exhibited in previous parts of the trial.

Many students read up "history," from translations, abridgements, or analyses of classical works, thus in some measure lessening the labour which they would otherwise find in the perusal of the original authors.

In the higher or class examination for the B.A. degree, "polite literature" at Oxford is still based upon Aristotle, and the examiners are considered to pride themselves in their selection from his ethical

and rhetorical writings of whatever is abstruse and complicated and difficult, to the neglect of the philosophical views of that great writer on more interesting topics, as on human character, or friendship, or national polity.

The student, who wishes to excel in the Aristotelian examination, must have made himself acquainted with the various explanations of obscure or contested passages in the *Nicomachean Ethics*; he must have endeavoured to master the confused arrangement of the most difficult parts of this once celebrated treatise, and have investigated the different methods of division in different editions, arising from the complication of its various subjects.

Aristotle's *Rhetoric* is a work far more easy of comprehension, from its clearer and more accurate system of arrangement, and a knowledge of both the *Ethics* and *Rhetoric* are deemed requisite for obtaining a place either in the first or second class at Oxford.

A large amount of laborious study is essential for complete preparation in the logical department of the class examination. Questions on the leading points of this abstruse art are given, and the undergraduate is expected to prove his familiarity with the syllogistic system, as well as with logical arguments and fallacies. Aldrich's *Logic* must be thoroughly known, and an acquaintance with the theory of syllogisms must be sought in the writings of its originator, Aristotle, particularly in his "*Organon*." An extended course of reading on logic will inevitably demonstrate to the student, that great authorities are frequently at variance on various points, and he will have to acquire the habit of discriminating for himself between conflicting opinions, which in the written examination he is occasionally invited to do.

One dialogue of Plato, such as the *Gorgias*, or the *Phædo*, may be taken up as a book at the class examination. The philosophical writings of Cicero are seldom discussed, and it would be regarded as eccentric for the student to profess even the *Tusculan Questions*; indeed, the Ciceronian style of philosophy meets with little encouragement in the Oxford schools.

Far more popular with the university authorities, is the *Analogy* of Bishop Butler, a clear understanding of which is highly appreciated by the examiners: with this work the three first of the collection of sermons by the same learned prelate are usually taken up. The mastering of such books is of great importance for the decision of class qualifications, and affords no slight proof of intellectual power.

A complete course of metaphysical reading at Oxford also includes the writings of Locke, Berkeley, and Montesquieu, of Reid and Dugald Stewart, as well as the German works of Kant and Fichte. Paley is much underrated on the banks of the Isis, and generally speaking, the attention of the student of moral science is chiefly directed to ancient philosophy. Ritter and Tenneman's works are useful on the ancient philosophic systems, and Lucretius "*de Rerum Natura*" will be found of value, with reference to the examination.

Moral philosophy is styled "science" in colloquial phraseology at Oxford, and each separate treatise in the philosophical department is farther honoured by the appellation of "a science."

Thus, for instance, a student who has read the *Ethics* and *Rhetoric* of Aristotle, a dialogue of Plato, and Butler's *Analogy*, (a common

combination,) is said to have got up four "sciences." With the addition of Aldrich's *Logic*, he is supposed by this singular mode of expression to have read five "sciences."

Next to Aristotle, the history of Thucydides may be considered of especial importance in the Oxford course of reading. For a good class, it is desirable to bring up the whole work, in which a competent knowledge of the more difficult passages can only be acquired by frequently recurring to them. In the department of history, the other works to be studied are Herodotus, and either Livy or Tacitus. Style is of more consequence in the historians, with reference to the examination, than either authority or veracity, and hence Livy is preferred to Polybius, and Herodotus is constantly read, notwithstanding his leaning to romance and exaggeration. Only a limited range of historical reading is required from the student, who has to make himself acquainted with the details of the Persian and Peloponnesian wars, the early and often mythical annals of the Roman state, and the history of the first emperors of Rome, while few take the trouble to study the rise of Macedonian power, or the age of Cicero and Caesar. In Oxford, as in all other universities, the limits of the examination circumscribe the reading of many of the students, and the modification and improvement of this central regulating power, the degree examination, would diffuse fresh vigour and energy throughout the whole educational system. Within the narrow bounds prescribed, deep reading and serious study are, however, requisite for the attainment of high honours. questions are occasionally set, which turn on comprehensive views of national polity and tendencies, or on parallels of similar ancient events at different periods, or on other topics of a like kind, yet requiring the exercise of a thoughtful mind a retentive memory and a practised faculty of discrimination, to be properly discussed.

When Herodotus is taken up for a class, the whole of the nine books are expected, though the questions in the schools usually relate chiefly to the first four. Xenophon is much less studied at Oxford than the two great historians, only when Thucydides is taken up, the *Hellenics* are often professed at the same time, as they complete the narrative of the Peloponnesian war, and carry down Grecian history to the period of the death of Xenophon, B.C. 360.

Demosthenes and the other great historical orators of ancient Greece are very rarely studied at Oxford.

Livy requires to be read with the critical observations of Niebuhr on Roman history, and the first ten books of Livy seem to be preferred for a class. Portions of Tacitus are often taken up, and are considered as a "high book." The *Epistles* of Cicero, which throw much light on cotemporary history, and are unexceptionable in style, are, nevertheless, not usually encouraged as "class" books.

"Scholarship," in Oxford parlance, means an acquaintance with the Greek tragedies and poetry, and with philosophy, and verse and prose composition. *Æschylus* is a decided favourite with the class examiners, and *Sophocles* is seldom omitted from the list of an ambitious candidate; *Euripides* is not quite so popular, being often taken up at the common degree examination. *Aristophanes* enjoys a high reputation, and either *Homer's Iliad* or *Odyssey* may be taken up by all classes of scholars: *Pindar* is only professed by the more advanced.

Latin poetry for the schools includes Horace, Terence, and Juvenal, all of them being popular works at Oxford. Virgil should not be omitted in a good class-list. Lucretius is regarded as more difficult, and is not so usually taken up.

Translations from English into Latin are required from all university students at Oxford; but original Latin composition is not expected at the ordinary degree examination, although frequently set as a college exercise, and occurring in the generality of examinations for orders. When the student is intended for the ministry some practice in it may be useful. Both varieties of writing Latin, whether from a portion of English or in the form of a theme, tell considerably in the class examination; and a correct style in translating from English into Greek is also of immense importance, together with a knowledge of Greek accentuation. In these particulars, as well as in Greek and Latin verses, the public schoolmen excel, and to them, in consequence, the best Oxford rewards are often assigned.

At the commencement of the *vivâ voce* examination for the degree of Bachelor of Arts in Oxford, the students are examined in "Divinity," and a certain amount of theological knowledge is absolutely necessary for success, whether the candidates are trying for the honours of a class or are contented with an ordinary degree; no difference in the amount of "Divinity" is observed in either case, and no allowance is made for pre-eminent success in the classical or philosophical parts of the examination.

Every student begins the divinity examination by receiving from the examiners a portion of one of the four Gospels to construe: questions are then put to him concerning the events which preceded and followed the incident declared in the text. This may lead to some doctrinal passage, which bears on one of the Thirty-nine Articles, and the candidate is required to repeat that Article by heart, and to confirm it by the quotation of other texts. Hence an occasion is taken to digress to some period of the Old Testament history, through different parts of which the examination ranges: some acquaintance with the Levitical Law is here requisite, and generally, the points of connexion between the Old and New Testaments, such as the types exemplified and the prophecies fulfilled in the latter, are much dwelt upon. The history contained in the Acts of the Apostles must also be accurately known.

Generally speaking, the amount of "Divinity" required for a B. A. degree at Oxford includes an acquaintance with the histories both of the Old and New Testaments, and an ability on the part of the candidate to construe the Greek text of the four Gospels, to repeat by rote each of the Thirty-nine Articles, and to quote the texts usually cited in proof of them. It is incumbent on the examiners, according to the ancient rules of the University, to be more particular in the theological department of the examinations than in any other, and hence the majority of failures at the degree examination occur from want of success in this department.

So completely, indeed, are the minds of some of the students bewildered by the novelty and publicity of the scene, that questions more suited to the precincts of a common Sunday school than to the final examination of a university are continually misunderstood or unanswered; and a term seldom passes over without the occurrence of

mistakes on the part of the candidates, which would be deemed ludicrous on any less important or less serious subjects. A *viâ voce* examination is, at any time, less favourable to the clear comprehension of difficult topics than one conducted with printed papers of questions; and when a young student rises, for the first time, in the presence of three or four examiners, with a number of his cotemporaries seated near to listen to whatever replies he may make to the queries put to him, a good deal of nervousness is almost inevitable.

Besides, in the case of candidates for a class, many of the students take up such a vast quantity of ancient literature for examination, that they may easily find themselves pressed for time in their preparation of the classical subjects, and they are too apt, amidst their other multifarious occupations, to neglect their theological reading, and especially the historical part of it. The class candidates also generally underrate the degree of proficiency required in divinity. Hence whatever failures may occur in the class-schools, are almost always owing to this cause; scholars are then occasionally plucked who have been reading up the other subjects with great care and accuracy, but have overlooked this indispensable qualification. On the other hand, cases of distinguished talent in the study of divinity now and then occur, and questions are accordingly proposed by the examiners calculated to elicit the knowledge so possessed. The quantity of information required for success in the theological department is however always and under all circumstances fixed and invariable, and it is merely as a compliment to superior scholars that queries of extraordinary difficulty are occasionally set to them.

A more satisfactory plan would probably be to conduct the divinity examination by means of printed papers of questions, adapted in part to the less accustomed students, with a few queries of considerable difficulty for the more advanced, but limiting the subjects of examination as far as possible to a definite range of Scripture history and antiquities.

Experience proves that the students who are plucked in divinity are generally deficient in the department of interpretation of texts and articles, and in that of history. Not only are all candidates for the B.A. degree expected to perform the wearisome and laborious task of committing to memory the whole of the Thirty-nine Articles with their antiquated and formal diction and their accumulated clauses, but they have farther to get up a large amount of illustrative biblical knowledge, and to produce it when called upon to do so at a moment's warning, in the University schools.

The certain result is, and must continue to be, until the system of examination is altered, that a large number of the candidates for degrees are plucked in this subject of divinity.

It is also found, that students who have come forward to enter themselves for their degree are occasionally so apprehensive of the result of their examination, that they retire from the contest even before its commencement; and as they do not pass, they are reckoned as if among the unsuccessful candidates.

Some criterion of the peculiar working of the Oxford system, in its present state, may be obtained from the following extraordinary pro-

portion of unsuccessful candidates, who are either plucked, or who retire of their own accord from the University examinations:

Results of the Oxford Degree Examination.

	Total number of candidates.	Class Men.	Ordinary Degrees.	Total number passed.	Total did not pass.
1840	424	97	210	307	117
1841	399	105	154	259	140
1842	426	102	188	290	136
1843	409	98	200	298	111
1844	409	79	198	277	132
1845	398	84	194	278	120
	<hr/> 2,465	<hr/> 565	<hr/> 1,144	<hr/> 1,709	<hr/> 756
Annual average	410	94	190	284	126

Hence nearly one-third of the candidates for the degree of Bachelor of Arts are annually unsuccessful, and this too when the majority of the aspirants have kept terms in the University for fifteen terms, or nearly three years and a half, (there being four terms in the academical year in Oxford.)

Students who fail twice in the B.A. examination remove to a Hall, or institution without fellowships, and instances have occurred of extraordinary dulness, when candidates have reached their seventh or eighth year of residence, before they have succeeded in passing the ordinary degree examination.

It is obvious that a considerable number of second trials must be included in the number of candidates for the B.A. degree, as the average of the annual matriculations from 1839 to 1845 is only 407, and the annual average of undergraduates of at least three years' standing, desirous to pass their degree examination from 1840 to 1845, is the large number of 410, when it is well known that in all universities the number of resident students annually diminishes, and that after the lapse of three years many of the undergraduates, to whom a degree is comparatively of no consequence, will have left the University.

With the large proportion of nearly one-third of the candidates annually unsuccessful some revision of the examination system for the degree of Bachelor of Arts appears desirable; and if any means of improvement could be devised to render the subjects of examination more really useful or even less mortifying to the students, a much larger number of degrees would probably be taken every year in the University of Oxford.

A Statistical Account of the Municipal Provisions for Paving, Lighting, and Cleansing the Streets and Public Places of the Metropolis, and for Protecting them from Nuisances. By JOSEPH FLETCHER, Esq., Barrister at Law, Honorary Secretary.

[Read before the Statistical Society of London, June 15, 1846.]

THE present state of investigation, discussion, and legislation, on the sanatory condition of our large towns, will give some degree of interest, and, I hope, of utility, to the following statistical outline of the provisions for paving, lighting, cleansing, and preventing nuisances in, the streets and public places of the Metropolis. The existing evils, the mode in which they operate to the public injury, the crying necessity for their removal, and the physical, moral, and consequently pecuniary benefits which would hence arise, have been traced through every channel of evidence, with zeal, with science, and with a heartfelt desire for the public weal. But we are now sensible of delay at the threshold of expectation in regard to legislative results; and my own habits and occupations have led me to attribute some part of this delay to the want of fuller examination into the constitution, powers, funds, and operations of the authorities already charged with the duties of sanatory police, as now imperfectly defined;—authorities upon which the exercise of nearly all new authority will devolve, unless superseded in a general revision of the municipal system which has grown up during the last two centuries, under innumerable local Acts. These Acts have created an extraordinary number of separate corporations, of various organization, dissimilar powers, and arbitrary limits, which are monuments of the local energies that gave them birth, and maintain them in an existence of considerable efficiency, notwithstanding the nature of their conflicting powers, and the general wastefulness of their management.

Whether any improvement in these bodies can be effected or not, it is equally important that they should be understood, for the Legislature cannot overlook the existence of authorities which it has constituted. It cannot, even, refuse to entrust to them the powers which it may newly create, unless their unfitness to wield them be demonstrable and demonstrated; for such powers must bring new burdens, of however limited amount, upon the rate-payers. These will not regard with complacency the multiplication of offices; and the existing authorities, anticipative of local uneasiness, and desirous to avoid trouble, will always throw into the scale the dead weight of their opposition to any general measures of improvement; a weight that is likely to preponderate, so long as their credit and efficiency as administrative bodies is unimpeached and unexamined. It was in anticipation of this difficulty that I obtained permission to lay before you on several former occasions, statistical accounts of the provisions for sewerage, and the supply of water in the Metropolis; and I now beg to submit the following outline, which completes the account of the existing system of managing the streets and sub-ways of London, so far as it can be derived from public documents. These are so various and scattered, that to have collected the results within readable compass will not have been a futile labour; and even the defects of the several statements, arising, as they do, from absolute want of recorded

evidence, will suggest the necessity of new inquiries, which I hope will not long be delayed.

Nor are the particulars thus collected of merely local interest. They exemplify the principles and practice of the like bodies in the large towns of England generally. And few classes of facts can throw more important light upon the "condition and prospects of society," than those which elucidate the constitution and operation of its local institutions. The "occasion" of their production is temporary, but such value as they possess, to one great end, is permanent. I have first described the state of things in the city of London, because its example has in the main been followed by the rest of the Metropolis, and the provincial cities have then followed in the like train.

Ancient Street Regulations and Tolls in the "City."

The "citizens" have devoted unceasing solicitude to the paving, cleansing, and lighting of the streets, from the date of their earliest records. In these we soon find the existence of a prescriptive custom of imposing a scot or rate for the maintenance of the streets and public places, the property in the soil of which was expressly granted to the corporation by the charters of Henry VI. and Charles I., though in all probability these charters were in this respect but confirmations of a prescriptive right. We find also customs of very early origin regulating the streets in regard to nuisances, obstructions, and the preservation of conduits; and anciently a charge was annually given to each alderman as to the care of his ward, directing him to see that the inhabitants hung forth lights, as in old time accustomed; that scavengers and a raker to make clean the streets and lanes of the ward, be appointed and paid; and that all the streets and lanes shall be from time to time cleansed and clearly voided of ordure, dung, mire, rubbish, and other filthy things whatsoever that be to the annoyance of the king's majesty's subjects*. To keep the carriage-ways, such as they were, from being absolutely destroyed, it was ordered, too, that "no carts shod with sprig-nails" should come upon them; and that "no carts or cars using daily carriage in the city should have wheels shod with iron, but bare, under pain of six shillingst."

A principal source of income for the maintenance of the streets, and once, probably, of the gates and walls of the city, appears always to have been the prescriptive tolls which are still taken at the several gates, bars, or entrances, into the city and liberties, notwithstanding that the objects for which they appear to have been always levied, have long been otherwise provided for, so as to leave it difficult to find any express service on the ground of which to justify their continued collection, as all prescriptive tolls require in law to be justified.

The street tolls are payable on all carts not the property of freemen, on entering or leaving the liberties of the city, according to the annexed schedule. These tolls are leased for periods of three years by the corporation.

Strictly the duty is payable on non-freemen's goods, even if in a freeman's cart, but in practice the freemen's carts pay nothing, however loaded. These tolls are not levied in Southwark.

They are receivable according to the following schedule:

For every wayne, waggon, country cart, dray, or tumbrel coming into the

* Precept to the Aldermen, Bohun, p. 384.

† Bohun, p. 108.

liberties of the city of London laden with goods, wares, or merchandise (except those which shall be the property of persons exempt by law from the payment thereof), *2d.*

For every such wayne, waggon, country cart, dray, or tumbrel going out of the liberties aforesaid so laden (except as aforesaid), *2d.*

For every city cart coming into the liberties aforesaid, within the district aforesaid, laden with foreigners' goods (except as aforesaid), *1d.*

For every city cart going out of the liberties aforesaid, from within the district aforesaid, so laden (except as aforesaid), *1d.*

The inhabitants of the manor of Hendon claim an exemption from the street and market tolls, which is allowed by the corporation.

This exemption is grounded on a charter of Henry III., by which the inhabitants of Hendon are freed from all tolls in every fair and market, and over every bridge and in every way and water, and also by sea, for themselves and their wares; confirmed by several subsequent charters of like effect*.

There are six districts for the collection of these tolls, viz., Fleet, Holborn, Smithfield, Aldersgate, Bishopsgate, and Whitechapel. Their total produce to the city's cash, in 1833, was £3490; and in 1842, it appears to have been £4795; but these sums do not represent the total charge upon the public, which is more by the amount of the profits of the renters, added to the heavy cost of collection, of which the corporation accounts afford no estimate, but which must render the whole a very unprofitable as well as vexatious charge. These tolls, have, however, been in some degree restored to their original purpose by a recent Act of the 1st and 2nd Vic., c. 83, "for making a new Street from Holborn Bridge towards Clerkenwell Green."

Modern Management of the City Streets, under the Commissioners of Sewers.

The manner in which the paving, cleansing, and lighting of the streets in the City, subsequent to the great fire, became vested in the Committee of Common Council, who are also Commissioners of Sewers, has already been described, in my account of the municipal provisions for the sewerage of the metropolis.

These Commissioners may cause any of the streets in the city and liberties to be newly paved or repaired, whenever and in such manner as they think fit; half the estimated expense of new streets into private property being defrayed by the owners. The whole arrangement of pavements, channels, surface-levels, gas and water-pipes, posts and bars, and of steps, bulks, show-glasses, show-boards, balconies, windows, and stall-boards, encroaching upon the footways, as also of entrances from the footways into vaults and cellars, and of the names at the corners of streets, is vested in that body. They may make orders for whatever repairs they may deem requisite; but without their permission, not even the Gas and Water Companies may have up any pavements in the principal streets between the hours of 8 A.M. and 6 P.M.

The Commissioners are empowered to take down all signs and sign-posts, balconies, pent-houses, show-boards, spouts, and gutters projecting into the streets, and all other encroachments, projections, and annoyances whatever, and affix the same, or such parts as they think fit, flat on the fronts of the houses to which they belong, returning to the owners so much as shall not be put up again or other-

* Second Report, Corporation Commissioners, Appendix Part I., p. 203.

wise used in the alteration; and all persons newly making such encroachments are subjected to a penalty of £5, and £1 for every day of its continuance. Cranes, however, may be used on street fronts, if, when not in actual use, they are turned back and kept close to the walls. Carts or waggons standing more than an hour, or placed athwart, in any street, or remaining longer than necessary to load or unload, or any other thing obstructing the free passage, may be removed by the officers of the Commissioners to the common city pound, called the Green Yard, to be there kept until claimed, and a fine of 20s., with the expenses of removal, paid; and in default of the same being paid within three days, the Commissioners are authorized to order the same, or a sufficient part, to be sold to pay the penalty and expenses. This provision is likewise extended to all unlicensed hoards, or other erections, in the streets for building or any other purpose, the penalty being increased to £5; and rubbish deposited in the streets may be removed whenever the Commissioners think proper, at the expense of the offender, who is likewise subject to a penalty of 20s.

Altering the form of the pavement, or breaking it up, without the express authority of the Commissioners, except for the purpose of taking up, laying down, or repairing any water-pipe, subjects the offender to a penalty of £5, over and above the expense of relaying the same, according to the Commissioners' directions; but on the complaint in writing of any two householders to the Commissioners of any defect or want of repair in any of the pavements, the Commissioners must have the same inspected by their surveyor, and on the same being reported defective, give orders to their contractors or paviours to repair it; which order must be executed within four days after its receipt, under a penalty of 20s. per day. Water and Gas Companies must perform any repairs required to their pipes on notice from the Commissioners; and both they and private persons permitted to open the pavement for the purpose of making drains, having completed their task, and rammed down the earth, must give immediate notice to the paviour of the Commissioners, who must relay the pavement that has been disturbed, unless, in the case of the Water Companies, it has been relayed by their own paviour. The Commissioners may have the streets watered as often as they think fit, and cause wells to be dug and pumps erected for the purpose. They must provide conveniences for the deposit of dust or ashes by their scavengers or rakers. Any one depositing dirt in the streets is liable to a penalty of 10s.; and every householder must cause the footway before his house to be scraped, swept, or cleansed every day before ten o'clock in the forenoon. The lighting of the streets is entirely under the order of the Commissioners: the accidental breaking of a lamp makes the party concerned liable to repair the damage; and if it were wilful, to a further penalty of 20s.; and lamps put up in any of the streets by private persons are equally under the regulation of the Commissioners. Night carts are not allowed to begin taking away night soil from any house before eleven o'clock at night, and must leave off at five in the morning; and the men employed must exercise every care, or be immediately committed to Bridewell for any time not exceeding one month nor less than ten days, a reward of from 5s. to 20s. being given to the informer. Various other regulations are made for order and decency in the streets by the statutes under which the Commissioners act; but they are in effect included in the provisions of the Police Act, or in those hereafter quoted, p. 216, or are more strongly enforced in the General Paving Act of the metropolis, p. 213.

The consolidated rate is levied by the Commissioners to defray the cost of the paving, lighting, and cleansing; and according to the estimate of what they shall want for the year, they issue precepts to the Common Councilmen of the several wards to make a rate on a stated scale per pound, within the legal limit of 1s. 6d., and have it collected by the ward collectors specially appointed to this duty. All the works under this commission are done under public competition, whether paving, cleansing, or lighting; but as there are only two companies which can effect the latter by coal gas, the contracts in this department are not much influenced by it. For scavenging it has been customary to divide the city into fourteen districts; but under the existing contract (October, 1843) these are consolidated, and the contractor is required to use the new sweeping machine, which, by

means of revolving brushes, at the rear of a low cart, keeps the thoroughfares in a state of cleanliness which hand labour could not accomplish. The scavenging, instead of costing about £4000 per annum, as at present, used to afford a profit of £5000 per annum, before the value of the small cinders contained in the ashes of the inhabitants (which the contracting scavengers alone were allowed to remove) was nearly extinguished by the use of cheap small coal in the making and burning of bricks. The expense of lighting the city with oil used to be about £9000; and the gas lighting of the whole is done for about £10,000. The Gas Companies keep the pipes in repair and make the communications. The lamps belong to the Commissioners. The length of the ways under their superintendence has been estimated at nearly fifty miles. The income of the Consolidated Rate Fund in 1833 was £54,937 12s., and the expenditure, £51,300 10s. 1d.

The following is the account for the year ended at Michaelmas, 1844:—

An Account of Monies received and paid by the Chamberlain of the City of London, in the Year ending 29th September, 1844, for Paving, Cleansing, and Lighting, the said City and Liberties, pursuant to the several Acts of Parliament of 11 Geo. III., c. 29; 33 Geo. III., c. 75; 57 Geo. III., c. 29; and 4 Geo. IV., c. 114.

Dr.

Balance in hand on 29th September, 1843 (as per statement delivered to the Honourable House of Commons, 11th July, 1844)	£	s.	d.
	6,920	11	0
To cash further on account of rates and assessments made by virtue of the said Acts, in respect of the year ending at Michaelmas, 1840, 1841, and 1842, respectively	916	14	8½
To ditto further on account of the said rates for the year ending at Michaelmas, 1843	26,730	16	3
To ditto on account of the said rates for the year ending Michaelmas, 1844	20,300	16	0½
To fines levied on persons for neglect of duty in cleansing, and for causing obstructions and annoyances in the several streets of the said city ..	52	11	0
To compositions for paving, &c.	1,267	15	7
	£56,189	4	7

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By the expense of paving and repairing the pavement in the several streets of the said city	£	s.	d.
	20,706	5	0
By ditto of cleansing ditto	3,826	12	6
By ditto of lighting ditto	10,599	11	0
By sundry artificers employed in the works directed by the said Acts	846	13	0
By salaries to officers employed in the execution of the said Acts	2,446	3	8
By wages to workmen for breaking and dressing stone	901	5	9
By sundry incidental charges, stamps, stationery, &c.	1,224	0	2
By life annuities granted under Act 57 Geo. III.	2,547	0	0
By law expenses	258	13	0
By purchase of ground thrown into the public streets	2,164	15	0
By cash transferred in aid of the sewers' account, per order of Commissioners	9,000	0	0
	54,520	19	1
Balance in hand on 29th September, 1844	1,668	5	6
	£56,189	4	7

A trifling addition to this expenditure, for paving, cleansing, and lighting in the city, is made on account of a petty trust under the 57th of George III., for the improvement of Christopher Court, St. Martin's-le-Grand, the income of which, in 1833, was £25, and the expenditure £935 4s.

Trusts for the management of the Metropolitan Streets, without the Limits of the "City."

The sums contained in the preceding account are very large, but of the economy of the expenditure we have no means of judging. In no department, indeed, of the municipal economy of the Metropolis, is the Corporation Commissioners' Report more defective than in this. The Commissioners did not interpret the terms of their instructions, "to inquire into the several local jurisdictions existing within the limits of all *corporate towns*," to prescribe investigations without the "city," though the latter by itself seems scarcely to form a "corporate town," in the sense of the Commission, which evidently contemplated the *whole* of every town in which there existed a municipal corporation; a sense in which they were read in every other city and borough.

In the reports upon other cities, the supplemental trusts for paving, cleansing, lighting, &c., which have grown up around the old corporations, are briefly described. But not a word is to be found concerning the crowd of such trusts under which each successively created suburb of London, beyond the city and liberties, fell, so soon as the absence of all provision for these commonest services became intolerable. Until the institution of the new police, the local watch was also under the charge of these trusts; but since its withdrawal their powers are limited to precisely the same services for which the consolidated rate is levied by the City Commissioners of Sewers; viz., the paving, lighting, and cleansing only of the streets.

A large proportion of them are simply the Vestries of the parishes, or committees of those vestries, infected with all the vices exhibited by the parliamentary inquiry concerning vestries in 1830; the Act of the 1st and 2nd of William IV., c. 76, commonly called Hobhouse's Act, establishing popularly chosen select vestries (elected by lists in gross) having been adopted only by five parishes in the Metropolis; viz., those of St. George Hanover-square, St. James Westminster, St. John the Evangelist Westminster, St. Marylebone, and St. Pancras. All the other parishes, in which there are select vestries, have them regulated either by express local Acts, or by the 59th of George III., c. 12, permitting and regulating the appointment of a permanent committee out of each vestry; not, however, until the 58th of George III., c. 68, under which the open vestries still remain, had re-modelled the constitution of these, by giving to every rate-payer assessed at more than £50, a vote for every additional £25, to the number of six.

In many parishes, however, the paving, cleansing, and lighting, and the levying of rates to meet these services, is vested, not in the vestries, but in Boards of Commissioners or Trustees, by local acts, which generally require various qualifications, by property or rating, for both electors and elected; and in some instances the qualification constitutes a commissioner or trustee without any election. Nor are these special trusts under local Acts restricted to the limits of any particular parish;

some of them, like those of the east and west divisions of Southwark, comprising several entire parishes; and others, parts of different parishes, or only a portion of one.

The principal parochial and other trusts regulating the paving, lighting, and cleansing of their several districts, which made returns of their expenditure to Parliament in 1813 and 1825, are the following:—In the *West* of London, those of the parishes of St. Clement Danes; St. Mary-le-Strand; St. Martin in the Fields; St. Paul, Covent Garden; St. George, Hanover-square; St. James, Westminster; St. Margaret, Westminster; St. John the Evangelist, Westminster; St. Anne, Westminster; St. Marylebone; and the Savoy Precinct; with the minor district of the South-west of St. Pancras; Grosvenor-square; Berkeley-square; part of St. John's, Westminster; and the dispersed streets, eight in number, under the direct management of the Commissioners for Paving, &c., in Westminster, under the 11th George III., c. 22:—in the *North* of London, those of the parishes of St. Andrew, Holborn above Bars; St. George the Martyr, Middlesex; St. Sepulchre, Middlesex; St. Bartholomew the Great and Less; St. Giles in the Fields, and St. George, Bloomsbury; St. John, Clerkenwell; St. James, Clerkenwell; St. Luke's, Middlesex; St. Mary, Islington; St. Leonard, Shoreditch; and Christchurch, Spitalfields; with the minor districts of Red Lion-square; Charter House-square; the Rolls Liberty; Ely-place, Holborn; Middle-row; and the Liberty of Saffron-hill, Hatton-garden, and Ely-rents:—In the *East* of London, those of the parishes of Trinity Minories, Christchurch, Middlesex; St. Mary, Whitechapel; St. Paul, Shadwell; St. Anne, Linchouse; St. John, Wapping; All Saints, Poplar; Hackney; St. Matthew Bethnal-green; St. George in the East; St. Botolph Without Aldgate; the hamlets of Ratcliffe, Mile-end Old Town, and Mile-end New Town; the precinct of St. Catherine; the Liberty of Norton Folgate; and the minor districts of the Old Artillery-ground; Church Lane; Goodman's-fields; Ratcliffe-pavement; Wapping-pavement; Shoreditch High-street; the Commercial-road; Rosemary-Lane; Whitechapel High-street; and Whitechapel-road Side:—and in the *South* of London, those of the parishes of Christchurch and St. Thomas, and the Clink Liberty, together with the East and West Divisions of Southwark*.

A subsequent return, in March, 1831, including the suburban turn-pike-roads, adds nearly 60 to the above list of trusts, levying rates and tolls upon the inhabitants, and having a separate and independent management; being the greater number of those independent of parochial limits, viz.:—

Parliament-street, Bridge-street, Old and New Palace Yard.
Tothill Fields District, St. Margaret, and St. John
Millbank Road,
Vauxhall Bridge Road.
Grosvenor Place Trust.
Regent Street, Regent's Park, and Carlton Terrace.
Interior of St. James's Park.
St. James's Square Trust.

St. James's Burial Ground, Hampstead Road.
Calthorpe Estate.
Upper Liberty of St. Andrew, Holborn.
Doughty Estate.
Foundling Estate.
Swinton Estate.
South-West District.
Southampton Paving.
Bedford Estate.
Skinners' Estate.

* Sess. 1813-14, No. 355. Sess. 1825, No. 240.

Lucas Estate.
 Harrison Estate.
 Battle Bridge.
 Somers' Town.
 Brewer's Estate.
 Pancras Union Estates.
 Camden Town.
 Hamlet of Kentish Town.
 Hamlet of Highgate.
 Holmes' Estate.
 St. John's District of Clerkenwell.
 Charter House Square.
 Mile-End Road Trust.
 Commercial Road Trust.
 East India Docks.
 West India Docks.
 London Docks.
 St. Catherine's Docks.
 Hans Place.
 Hans Town.

Lincoln's-Inn-Fields.
 Waterside Division.
 Grange Road Division.
 Russell Street Division.
 Long Lane Division.
 Camberwell New Trust.
 Camberwell Old Trust.
 Peckham Old Trust.
 Clapham Road Trust.
 Kent Road Trust.
 Surrey New Road Trust.
 Wandsworth Road Trust.
 Lambeth Wyke Trust.
 Lambeth Improvement Act Trust.
 Brixton Road Trust.
 Walworth Road Trust.
 Holland Street Trust.
 Upper Ground Street Trust.
 South District of St. George.

The local statutes, under which all these petty corporations act, are far too voluminous and uninteresting for present dissection. The general constitution of such bodies, their endowment with powers to levy rates or tolls upon the public, and their ordinary encumbrance with debts incurred on the faith of such powers, are too well known to need explanation; while the differences between one and another of them, though very great, will not command attention, because of the comparative insignificance of each taken separately.

Nearly all the works under these trusts, as under the Commissioners of Sewers, are professedly done by public contract, whether in lighting, paving, or cleansing.

Lighting and Cleansing throughout the Metropolis.

The beautiful invention by which our towns are now illuminated with coal gas, reduces the labours of the several local authorities in this department of the public service, to little more than making a contract with the several Gas Companies existing under Acts of Parliament. So recent is the application of this gas, even in London, to the public lighting of the streets, that it was not until after an investigation before a committee of the House of Commons, in 1809, that certain persons were incorporated, "for procuring coke, oil, tar, pitch, ammoniacal liquor, essential oil, and inflammable air from coal;" and so late as 1814 there was in London only one gasometer, situated in Peter-street, Westminster, which belonged to the Chartered Company, as this association was then called, and could contain only 14,000 cubic feet of gas. At the time of the parliamentary inquiries in 1822, however, which finally established the safety of this means of illumination, there were four different companies, each having several distinct establishments, with 47 gasometers, capable of containing 917,940 cubic feet of gas. There were 1315 retorts, consuming annually 33,000 chaldrons of coal in the year, and producing 41,000 chaldrons of coke; the whole quantity of gas generated annually being upwards of 397,000,000 of cubic feet, supplied to 61,203 private, and 7268 public or street lamps. In addition to these great companies, placed by legislative enactment under the control of the Secretary of State, there

were then in the Metropolis several private companies, whose operations are not included in the foregoing statements*.

Between 1822 and 1827, the quantity of gas produced and consumed in London was nearly doubled; and between 1827 and 1837, it was doubled again. There are now twelve companies, having eighteen works, and employing a capital of £2,800,000 in works, pipes, tanks, gas-holders, and apparatus; the number of persons employed in this trade being about 2500, besides 380 lamp-lighters. The quantity of coal used per day when the nights are longest, is 890 tons; and about 7,120,000 cubic feet of gas are used in that of the 24th of December. The yearly consumption of coals in making the gas is about 180,000 tons; and the number of cubic feet produced, 1,460,000,000. The number of street lamps supplied in the city is about 2650, but the number in the whole Metropolis is not less than 30,400; and gas is likewise supplied to about 134,300 burners belonging to about 40,000 private consumers. The number of gas-holders is 176, several of them double, and the whole capable of containing 5,500,000 cubic feet. The yearly receipts of the companies amount to about £450,000. For the latter statistical details, we are indebted to Joseph Hedley, Esq., engineer of the Alliance Gas-works, Dublin, who has long endeavoured to induce the Directors of the London Gas-works to employ a better coal, and generate a more richly carburetted gas, which, in much smaller quantity, would give as brilliant a light, without heating the apartments unpleasantly, as their highly hydrogenated gas now doest.

Notwithstanding that the want of any general municipal authority has caused the relinquishment of the street lighting into the hands of private companies, it can scarcely be considered a fit subject for private enterprise, compatibly with the interests of the public. No Gas Company can render its supplies except by making use of the public ways for the underground conveyance of its pipes, to lay down which each has power to break up the pavements; where rival companies have pipes in the same thoroughfares, it is a strange waste of capital, and a constant detriment to the condition of the street, owing to the multiplied frequency of removing the pavement to get at them; and compromise soon puts an end to the supposed advantages of competition. If one company's pipes alone be laid down, that company has a monopoly of the supply; and thus, in any case, the local authorities are forced to become, either the protectors of a monopoly against themselves and their constituents, or surrender their streets to be destroyed by a foolish competition, which can never advantage the public, when the capitals thrown away are enormous, and the parties too few to refrain for any length of time from compromise. The experience of the Water Companies, which hold an analogous position, will more fully shew the impropriety of surrendering these services entirely to private enterprise, which thus becomes superior to the public interest, instead of remaining subservient to it.

With regard to cleansing, however, the defects of the existing system, or rather want of system, produce too serious an effect upon the public health to escape general notice; for the officers of the

* Report of Sir W. Congreve, Bart., to the Secretary of State for the Home Department, Parliamentary Papers, Sess. 1823, No. 193.

† See Ure's *Dit. Arts, &c.*, p. 302.

Commissioners of Sewers whose jurisdiction comprises the most unhealthy quarters of the town, rebut the charges against them, by asserting that fevers are caused by the filth which remains unremoved around the habitations of the poor. There can be no doubt, after a glance at the testimony to the state of those districts, contained in the Health of Towns Commissioners' Report, that the local authorities for cleansing, are in fault; and it is much to be regretted, that one branch of police, that directed against trades and professions injurious to the public health, has been of late years so much neglected, though formerly the subject of great vigilance. An ordinance of so early a date as the 16th of Edward I. is directed against the nuisance of coal smoke, which then arose from the burning of lime with sea-coal instead of wood, as formerly, by which the air was affected and corrupted*. By another, of the 44th of Edward III., the butchers of London are forbidden to slaughter cattle within the city, or throw entrails into the river Thames, on forfeiture of the carcase, and imprisonment†; but by the 12th of Richard II., c. 13, it was provided that the butchers of London should erect a slaughter-house on the banks of the Thames, and thither carry off their offals, which, when cut into pieces, should be carried in boats, and, at the ebb tide, cast into the river‡. In the 16th of the same reign, however, the more rigid regulations were again enacted, and reinforced in the 4th of Henry IV. and 4th of Henry VII., when the prohibition against slaughtering animals within the city was extended to every walled town in the kingdom, with the exception of Berwick and Carlisle; by which it is plainly seen that only the dangers of actual war could justify a suspension of this wholesome regulation§. And yet with all these early examples of their removal, now the nuisances arising from shambles and smoke are infinitely more grievous than ever; to say nothing of the manufactories, the gas-works, and every other deteriorating influence upon the air in the neighbourhoods into which the poorer classes are commonly huddled.

Endeavours of Parliament to bring the Street Trusts into a common System of Action.

Of the wisdom and economy of the various parochial and other local trusts without the City, in regard to the paving of their several districts, we have no documentary evidence, but we hear much which is not praise; and the wretched state to which the thoroughfares under their management were reduced, during the greatest mutual competition of the Water and Gas Companies, compelled a parliamentary inquiry, out of which arose the present Paving Act of the Metropolis, which gives some degree of uniformity to the proceedings of these bodies, whether styled Commissioners, Trustees, or Vestrymen. Whatever might be the defects of the City system of management, with regard to the streets, it was obviously, even at the period of this inquiry, a model of extended and effective authority, compared with anything beyond its jurisdiction; and, accordingly, the Metropo-

* Patent Roll, 16 Ed. I., Sanatory Report of the Poor Law Commissioners, p. 291.

† Rot. Claus., 44 Ed. III. Ibid, p. 292.

‡ Rot. Parl., 16 Ric. II. Ibid, p. 293.

litan Paving Act of the 57th of Geo. III. c. 29., commonly called "Michael Angelo Taylor's Act," endeavours to give to the local boards without the City as much as possible of the form, powers, and procedure of the Commissioners of Sewers, exercising the like functions within the City. The provisions of this statute apply to the Cities of London and Westminster, and the liberties thereof, the parishes included within the Bills of Mortality, and those of St. Pancras and Marylebone. It begins by reciting the inconvenience arising from the variety of local trusts for paving, repairing, and regulating the streets of the Metropolis. It empowers the commissioners, trustees, or other persons having the control of the pavements in every district within the limits of the Act, to appoint a sufficient number of housekeepers in each district as surveyors of pavements, removable at the Commissioners' pleasure; and boards are required to be placed in conspicuous parts of every district, inscribed with the names and residences of such surveyors. To the surveyor of any district thus appointed, any £50 householder, or any two £25 householders, may give notice of the dangerous or defective state of the pavement, and require its reparation; and such surveyor must cause the same to be repaired within a time limited, and in default may be summoned before any two justices of the peace, and ordered to repair the same, and repay the expenses of the summons.

All Water or Gas Companies are required, on every occasion, to give three days' notice to the surveyors before they break up any pavement, except for the purpose of altering the position of or repairing any pipes, stop-cocks, or plugs, or of substituting iron for wooden mains or pipes, in which case they must give such notice within twelve hours from commencing the same, under a penalty of 40s. for every square foot of pavement taken up. All their mains must be of iron, and their service and other pipes of iron, lead, or some durable material; and no new mains must be laid down during the winter months of December, January, and February, under a penalty of £5 for every foot of pavement taken up or of pipe laid down.

The surveyor of pavements is authorized, under the sanction of the Commissioners, &c. at any time during business hours, between ten and four, to attend at the office of any such companies, inspect the maps or plans of the mains, after two days' notice, and take extracts or copies; and whenever it appears to such surveyor that any pipe, stop-cock, plug, or other thing belonging to such companies, or any public sewer under the pavement, is broken or changed, he must give immediate notice thereof to the proper company, or to the Commissioners of Sewers, as the case may be, requiring the same to be examined, and, if needful, repaired, altered, or renewed, and the ground replaced within forty-eight hours afterwards, and the fact reported to the surveyor within twelve hours after it is completed, under a penalty of £5 for the first offence, £8 for the second, and £10 for every other; and such companies, in case the works requiring reparation turn out not to belong to them, are bound, under the like penalties, to transmit the original notice to the real company owning the same, within twenty-four hours after receiving it, and may then receive compensation for the trouble caused by the mistake. All labours of the companies in the public streets are to be performed under the reasonable orders of the Commissioners as to time, the removal of materials, &c., under the last-named penalties; and these bodies are to provide bars, posts, rails, ropes, watchmen, and lanterns, to protect the public from accident during the time the ground is excavated by them, under the penalty of £5. Mains neglected may be repaired by the Commissioners, and the companies sued for the expenses.

Pavements taken up by Gas or Water Companies, or by any other persons, must be properly repaired by the paviour or mason of the Commissioners, to the satisfaction of their surveyor; and all the charges and expenses, being duly certified by the proper officers, must be paid by such company or persons within two months after demand; and on neglect thereof, Commissioners may recover double the amount of

such charges and expenses by a warrant of distress, or before the Court of Requests, or by action in the superior courts. And the taking up of any pavement, by other than Water or Gas Companies, as aforesaid, subjects the offender to a penalty of £5, and not exceeding £10, for every square foot so taken up. Commissioners may erect posts of wood, stone, or iron, in the streets, for preventing accidents, and any person wilfully or carelessly damaging the same, is subject to a penalty of 40s., and not exceeding £10, in addition to repairs and costs.

Commissioners may appoint scavengers, who are required to remove dust and ashes, &c., from the inhabitants' houses, on penalty of 40s., and have a right to the dust and ashes from the houses, provided they come into the street for the purpose within seven days from their last appearance there, or twenty-four hours after notice; in default whereof, such dust, &c. may be given or sold to any one else. No scavenger or any other person must sweep any slop, mud, dirt, dust, rubbish, ashes, filth, or soil found in the streets, or any slop, mud, &c., over any sewer-grating, or into any common drain or sewer, under a penalty of £5.

Every occupier of a house, stable, &c., must sweep the footway-pavement clean during frost and snow in front of his premises, before ten o'clock of every morning, under a penalty of 10s.; and any person beating carpets, driving or riding horses for the purpose of breaking them in, or exposing them for sale, or throwing, casting, or laying, or committing to be thrown, &c., any ashes, dust, dirt, rubbish, offal, dung, soil, blood, or other filth or annoyance, or any matter or thing, in or upon any carriage or foot-way pavement, in any street or public place; or killing, slaughtering, scalding, dressing, or cutting up any beast, swine, calf, sheep, lamb, or other cattle, in or near any street, so that blood or filth shall run over or on the same; or rolling down or placing in any footway-paving any waggon or other carriage, or any wheel, wheelbarrow, or hoghead, &c., or wilfully driving any horse, ass, or other animal on the footway-pavement, is liable to forfeit 40s., or not more than £5 for such offence, of which half shall be paid to the informer: one witness is sufficient, and offenders may be taken into custody, and carried before a justice by any one witnessing the offence.

Any person placing any chopping-block, stall-board, show-board, baskets, casks, or any kind of goods, or hooping, cleansing, &c., any pipe or barrel, on any part of the carriage or foot-way in any street or public place, or setting or placing any coach, wain, waggon, dray, or other carriage, (excepting hackney-carriages duly licensed,) on any carriage-way, excepting for the necessary time of loading or unloading the same, or placing any materials or things for building, or any other things whatsoever; or hanging out any meat or offal, or other matter or thing, from the house over the pavement, or over any area of such house, or placing out any garden or other pots, (except the same be, to the satisfaction of the Commissioners' surveyor, perfectly secured from falling,) or other thing over or next to the street or public place, and not removing all such things when required by the Surveyor or the Commissioners to do so, or having so removed again replacing the same, are subject, for the first offence to a penalty of 40s., and for every other to a penalty of £5, one witness being sufficient; and any officer of the Commissioners may seize such things or goods so placed, and if the same be portable articles of food, they become forfeited, and must be at once delivered to the churchwardens or overseers of the poor, or to the master of the workhouse in the parish or district where seized; and if not perishable, must be taken to the green-yard or pound, and if not claimed, and the expenses paid, within five days, they may be sold as other distresses.

Commissioners, &c. may, upon complaint to them, that the same is a nuisance, order any hogstye, slaughter-house, horse-boiling establishment, or necessary-house, to be forthwith removed; and if not so removed in seven days after notice, the parties are liable to a fine of £10, and to be indicted at the next sessions for a common nuisance. Swine found wandering in the streets, or kept in any place within forty yards of any street or public place, may be seized as forfeited, and their owners, &c., are besides liable to a fine of 10s. Lime must not be slaked in any street or public place, except within a hoard duly licensed by the Commissioners, under penalty of 40s., and not exceeding £5.

Cellar entrances, area-windows, coal-plates, &c., must be properly secured to the satisfaction of Commissioners, and not kept open (except for reasonable time while in use,) on penalty of 40s., and not exceeding £5, together with the expenses of such repairs as the Commissioners may order. And the same regulation applies to

openings in the ground for building vaults, foundation walls of houses, &c. Commissioners may likewise regulate all projections on the pavements, or signs, fronts, bulks, &c., and may remove such as they deem inconvenient to the public, and obstructive of light and air, under a penalty of 40s., and not exceeding £5, for refusal, after notice, to alter such things to the Commissioners' satisfaction.

The sloop and night-carts are regulated in nearly the same terms as by the City Sewers' Act; and the written consent of the surveyor is required for the erection of hoards, or the same may be removed, and the offender becomes liable to a penalty of 10s. for every day during which they have been up.

Commissioners are empowered to order the streets to be watered, and to levy a rate for that purpose, but not without the consent of three-fourths of the inhabitants. They are also empowered to stop up courts, alleys, or places which have become dangerous or offensive, after being ordered by any two or more justices, and with the written consent of the owners of the property adjoining to four parts in the five in length of such court or alley, subject to appeal if required; and no court or place can be stopped if in so doing any owner of any house or tenement, or land therein, is prevented from passing freely to and fro.

For the improvement of the streets, and public places in the parochial or other districts, within the jurisdiction of this Act, and for the public advantage, Commissioners or Trustees of paving within the district are empowered to alter, widen, turn, or extend any of the streets or other public places, within any such parochial or other district, (except turnpike-roads,) and to lengthen and continue or open the same, from the sides or ends of any streets or public places, within any parochial or other district, into any other street or public place, and to raise, level, lower, drain, ballast, gravel, or pave such new part or parts of any such streets or public places, so altered, widened, extended, opened, or lengthened; and if any houses, walls, buildings, lands, tenements, and hereditaments, or any part thereof, be adjudged by the said Commissioners or Trustees, or other persons as aforesaid, to obstruct or prevent them from effecting such improvement, and the possession of such houses, &c., be necessary for the purpose of effecting it, such Commissioners or Trustees may contract, by themselves or their agents, with the owners and occupiers for the same, and pay for it out of the rates; and the usual provisions are added for enabling incapacitated persons to convey, and for issuing a precept and impannelling a jury, in case of dispute, &c., as in other Improvement Acts.

An express saving of all the existing powers and regulations is granted to the turnpike-road trusts, the Marquis of Camden's and Lord Somers's estates in St. Pancras, the parishes of St. John, Hackney, and St. Mary, Islington, the Westminster and Surrey Commissioners of Sewers, the estates of the collegiate church of St. Peter at Westminster, and the Commissioners named under the 56th of George III., c. 128, in regard to all projections in the new improvements of Regent Street and the Regent's Park.

Street Regulations of the Police Acts; still leaving the Metropolis in its various parts, under Three Different Codes.

Many of the provisions of this important statute are enforced throughout the Metropolitan Police District by the Acts of 1839, which regulate the police, as well within the city as without, and by which every person guilty of the following offences against public decency and cleanliness in the streets, whether in the City or in any other part of the Metropolis, is subjected to a penalty not exceeding 40s. for every offence, and may be arrested by any police constable, or by any person injured or annoyed by their commission:—

1. Every person who in any thoroughfare shall burn, dress, or cleanse any cork, or hoop, cleanse, fire, wash, or scald any cask or tub, or hew, saw, bore, or cut any timber or stone, or slack, sift, or screen any lime:

2. Every person who shall throw or lay in any thoroughfare any coals, stones, slates, shells, lime, bricks, timber, iron, or other materials (except building materials, or rubbish thereby occasioned, which shall be placed or inclosed so as to prevent any mischief happening to passengers):

3. Every person who in any thoroughfare shall beat or shake any carpet, rug, or mat (except door-mats before the hour of eight in the morning), or throw or lay any dirt, litter, or ashes, or any carrion, fish, offal, or rubbish, or throw or cause any such thing to fall into any sewer, pipe, or drain, or into any well, stream, or watercourse, pond or reservoir for water, or cause any offensive matter to run from any manufactory, brewery, or slaughter-house, butcher's shop, or dunghill, into any thoroughfare, or any uncovered place, whether or not surrounded by a wall or fence; but it shall not be deemed an offence to lay sand or other materials in any thoroughfare in time of frost to prevent accidents, or litter or other materials to prevent the freezing of water in pipes, or in case of sickness to prevent noise, if the party laying any such things shall cause them to be removed as soon as the occasion for them shall cease:

4. Every person who shall empty or begin to empty any privy or pigstye between the hours of six in the morning and twelve at night, or remove along any thoroughfare any night-soil, soap lees, ammoniacal liquor, or other such offensive matter, between the hours of six in the morning and eight in the evening, or who shall at any time use for any such purpose any cart or carriage not having a proper covering, or who shall wilfully or carelessly slop or spill any such offensive matter in the removal thereof, or who shall not carefully sweep and clean every place in which any such offensive matter shall have been placed, slopped, or spilled; and in default of the apprehension of the actual offender the owner of the cart or carriage employed for any such purpose shall be deemed to be the offender: Provided always, that this enactment shall not be construed to prevent the Commissioners of Sewers of the city of London and the liberties thereof, or any person acting in their service or by their direction, from emptying or removing along any thoroughfare at any time the contents of any sewer which they are authorized to cleanse or empty:

5. Every person who shall keep any pigstye to the front of any street, not being shut out from such street by a sufficient wall or fence, or who shall keep any swine in or near any street, or in any dwelling, so as to be a common nuisance:

6. Every occupier of a house or other tenement who shall not keep sufficiently swept and cleansed all footways and watercourses adjoining to the premises occupied by him; and if any tenement be empty or unoccupied the owner thereof shall be deemed the occupier with reference to this enactment:

7. Every person who shall expose any thing for sale in any park or public garden, unless with the consent of the owner or other person authorized to give such consent, or upon or so as to hang over any carriageway or footway, or on the outside of any house or shop, or who shall set up or continue any pole, blind, awning, line, or any other projection from any window, parapet, or other part of any house, shop, or other building, so as to cause any annoyance or obstruction in any thoroughfare:

8. Every person who to the danger of passengers in any thoroughfare shall leave open any vault or cellar, or the entrance of any thoroughfare to any cellar or room under ground, without a sufficient fence or hand-rail, or leave defective the door, window, or other covering of any vault or cellar, or who shall not sufficiently fence any area, pit, or sewer left open in or adjoining to any thoroughfare, or who shall leave such open area, pit, or sewer without a sufficient light after sunset to warn and prevent persons from falling thereinto.

A reference, also, to the previous list of offences, which the Police Acts subject to the like penalty, summarily inflicted, will show how completely, by successive steps, the old street regulations of the City have been incorporated into the system of the Metropolitan police at large; whether those enforced by ancient ordinances, or those which have grown out of the experience of the Commissioners of Sewers. But the existence of some correctional powers and provisions in one part of the Metropolis, such as the City, which have no subsistence within the other districts included under the Paving Act, and the

exemption again, of the more outlying portions of the town from the stringent regulations of this statute altogether, are anomalies much to be regretted, though to define them in detail would be a hopeless task. The statutes which we have cited, however, show a great progress in assimilation; and a board of modern institution, uniting a number of petty trusts, is so important an example of what may be effected by their further aggregation, as to demand an especial notice.

Metropolitan Roads; a favourable instance of Consolidation.

The preceding list of local trusts for the management of the streets and roads independent of parochial authority, is seen to comprise a number of turnpike-road trusts in the suburbs of the Metropolis, on the south side of the Thames, but only two on the north, viz., those of the Commercial and Mile End Roads. This arises from the other trusts on the north side, formerly fourteen in number,—viz., those of Kensington, Brentford, Isleworth, Uxbridge, Marylebone, Harrow, Kilburn, Highgate and Hampstead, City Road, Stamford Hill, Old Street, Hackney, Lea Bridge, and Camden Town,—having been consolidated in 1827 by the local Act of the 7th of George IV., c. 142, and placed under the Metropolitan Road Commissioners. Under this statute, the “Commissioners of the Metropolis Roads north of the River Thames,” are, the members for the city of London, the county of Middlesex, and the city of Westminster, Lord Viscount Lowther, and thirty-nine other noblemen and gentlemen, at first specially named in the Act. This Board supplies vacancies in its own number, when any occur by death or resignation; and its members are constituted by the statute Commissioners for making, amending, widening, improving, repairing and keeping in repair, cleansing, lighting, watching, and watering, pursuant to the terms of the general Turnpike Acts and of the several local Acts of the trusts which they have superseded, the several districts of roads the property of which is thereby vested in them.

The Act is very voluminous. It contains a complete code of street regulations, and even empowers the Commissioners to levy rates on the neighbouring inhabitants to defray in part the cost of watching and lighting; but the former service is now performed by the new police, and the latter has recently been in great part relinquished, in preference to using this power of taxation.

Special clauses protect from any interference on the part of the Commissioners, the several paving boards with which they come in contact in the parishes of St. Marylebone, St. Pancras, and St. Luke; and likewise preserve all the existing powers of the Commissioners of Sewers, and the Imperial Gas Company. The length of the Metropolis roads under the management of the Commissioners is 129 $\frac{1}{4}$ miles; and the whole have been, from the date of the consolidation of their trusts, under the superintendence of Sir James McAdam, as General Surveyor of the Metropolis Turnpike Roads north of the Thames, with an inspector, and nine sub-surveyors as assistants under him. The Board meets about twenty times a year, with an average attendance of ten members; and there are likewise committee meetings. The aggregate debt of the former trusts, which devolved upon the Commissioners, was no less than £127,050 13s. 5d., being a mortgage debt of £84,628 1s., a floating debt of £20,554 8s., and annuities amount-

ing to £1150, redeemed for £21,868 4s. 5d.; and yet the last letting of the tolls previous to the consolidation produced a revenue of £78,283 1s.

The Commissioners, with only £810 to meet these liabilities, were soon, however, enabled to remove all the gates which obstructed the very streets of the town, and yet retain a revenue sufficient, not only to bring the roads from a very imperfect state to a condition of great excellence, but also steadily to reduce the amount of their debt. In fact they retained only so many gates as would, with the arrangement most convenient to the public, continue to produce the former revenue of the trusts, viz., between £75,000 and £80,000. In 1838, alone, it exceeded this limit, the tolls letting for £83,497; but from this time the transfer of traffic from the turnpike-roads to the railroads, began to make serious inroads upon the revenue which the diminished number of gates was producing, insomuch that in 1840 it had declined to £67,475, showing a falling off to the amount of £16,000. By a trifling alteration in the mode of letting the tolls, in the shape of a resolution to collect them by their own servants, if they were not sold on the day of letting, all the tolls have, however, since 1843, been let at small advances; so that their total produce, which, in the last-named year was only £66,187 7s. 5d., was increased in that ended at Lady-day, 1845, to £66,414 19s. 5d.

Under these circumstances, the Commissioners found it incumbent on them to contract their expenditure; and with this view, after duly considering the nature of the various branches of service for which they had to provide, they resolved to relinquish the expense of lighting the roads, which presented, in their opinion, the most appropriate field for reduction, being an accommodation more to the parties living by the sides of the roads than to the general traveller, and moreover a service performed at the discretion of the Commissioners, and not imperatively imposed upon them by their Act. They considered, therefore, that this expense might be transferred to the respective parishes which comprise the main lines of road lighted by this Commission; and sent letters to such parishes, stating their intention to cease lighting the said roads, so soon as the several parishes should have had time to make any arrangements for lighting which they might deem necessary. In order, however, to afford every facility in their power to those parishes which might be willing themselves to perform this service, under the powers of the Act of the 3rd and 4th of William IV., c. 90, the Commissioners offered them the gratuitous use of their lamps, posts, and fittings; and before the time fixed for the Commissioners ceasing to light, at Michaelmas, 1841, all the parishes to which the letters were sent, assumed the lighting of the turnpike-roads, with the exception of those on the first and second districts, viz., the Kensington and Brentford Roads, which continued for a considerable time to be unlighted.

The materials, implements, &c., possessed by the Commissioners at Lady-day, 1845, were, 1660 yards of granite, 980 yards of flints, 1540 yards of gravel, 121 water-carts, 145 pumps, 42 stand-posts, 220 wheelbarrows, 126 sieves, 113 planks, 260 shovels, 247 pickaxes, 206 scrapers, 204 rakes, 10 tool-houses, 39 gates, 66 side-bars, 23 clocks, 160 pieces of furniture, 1 roller, 73 lamps, 49 lamp-posts, and 41 sundries.

General Account of the Receipt and Expenditure on the Metropolis Turnpike Roads, for One Year, to the 25th March, 1845.

RECEIPT.

	£	s.	d.	£	s.	d.
Balance on the 25th March, 1844.....	5,164	6	4

ORDINARY.

Tolls	66,414	19	5			
Composition from the City of London.....	48	10	10			
On account of the Rents of Estates; viz.:—						
Harrow School.....	£3,000	0	0			
Brewers' Company	99	2	10			
				3,099	2	10
Composition from the Magistrates of Middlesex, for the Repair of Roads over County Bridges: one year to 31st December, 1844.....	300	0	0			
Total Ordinary .....	...	...	...	69,862	13	1

EXTRAORDINARY.

From Gas and Water Companies and others, for Repair of Roads opened by them	569	12	5			
From inhabitants of Edmonton, in contribution of cost of improved Drainage; re-payment for in- juries to Toll-gate, and Rent of Premises.....	22	11	8			
				592	4	1
From Sale of Land, and Balance of Money issued for purchase returned.....				20	0	0
				£75,639	3	6
Balance .....	...	...	...	£4,580	14	4

EXPENDITURE.

ORDINARY.

	£	s.	d.	£	s.	d.
For the Maintenance of the Roads:						
Day Labour, including men at pumps during the watering season, and £36 11s. 10d. in the hands of J. Oniens, Sur- veyor, deceased	£9,590	7	1			
Digging Gravel, and preparing materials by Contract.....	1,831	2	6			
				11,421	9	7
Team Labour, including Watering .....	...	...	...	9,219	13	9
Materials, including Freightage, Wharfage, &c., viz.						
Flints	£5,950	11	9			
Gravel.....	5,474	12	11			
Granite and Hard Stone	13,031	12	9			
Wharfage	289	3	9			
				24,716	1	2
				45,387	4	6
Carried forward				£45,387	4	6

	£	s.	d.	£	s.	d.
Brought forward.....	45,387	4	6			
Tradesmen's Bills, viz.						
Implements	£278	1	6			
Wheelwrights, including repair of Water-carts	640	0	2			
Smiths	259	18	2			
Carpenters	448	17	8			
Bricklayers	449	12	7			
Plumbers, including repair of Pumps and Stand Posts.....	252	2	2			
Paviors	356	16	0			
				2,685	8	3
Rent and Taxes of Wharfs, Depôts, &c., viz.						
Rent	£500	17	6			
Taxes	52	15	1			
				553	12	7
West Middlesex, Chelsea, Grand Junction, New River, Hampstead, and East London Water- work Companies, for Water for the Roads, season 1844				962	15	7
Lighting, Turnpike-gates, &c.	529	4	0			
Fencing—Repairs	14	2	6			
Drain-pipes and Tiles, and Contribution to Works executed by other parties	182	2	9			
Sundry incidental Expenses for the Roads	24	5	6			
				4,951	11	2
For the Establishment:						
Salaries: Secretary, Clerks, Surveyors, and Office-keeper	3,355	18	8			
Commission on amount collected from Water and Gas Companies and others, for Repairs of Roads.....	14	19	11			
Rent and Taxes of Office, viz.						
Rent	£265	7	11			
Taxes	67	16	10			
				333	4	9
Advertisements, Printing, Stationery, Stamps, and Postages	176	19	10			
Repair of Clocks and Surveyors' Petty Expenses	46	19	5			
Repairs and contingent Expenses of Offices, &c.	101	19	11			
				4,03	2	6
Payments to Parishes, being proportions of Amounts received on account of the Rents and Profits of the Harrow School and Brewers' Company Estates				724	19	
Tolls on hand—Salary to Superintendent, and Toll- tickets.....				66	1	0
Income and Property Tax, on Interest, Salaries, and Premises rented				161	19	10
Total Ordinary				£55,321	18	0
EXTRAORDINARY.						
Balance in Repayment of Mortgage of £20,000, part of original Loan of £100,000	9,000	0	0			
Twelfth Instalment in Repayment of the remain- ing portion of Mortgage Debt of £100,000.....	-4,000	0	0			
				13,000	0	0
Carried forward				£68,321	18	0

	£	s.	d.	£	s.	d.
Brought forward.....	68,321	18	0			
Six Months' Interest on Balance of Mortgage of £20,000, to Date of Repayment, less income tax	£174	15	0			
One year's Interest on remaining portion of Mortgage, less income tax	1,398	0	0			
				1,572	15	0
Parliamentary and Law Expenses.....				178	15	4
Cost and Repairs of Toll-houses and Gates, and for Paint, &c.				260	18	11
Well-sinking, new Pumps, and Stand Posts				74	4	11
Tradesmen's Bills, in completing new Bridge, Harrow Road, repair of Lea Bridge, and re-building Wharf Walls				368	17	9
						2,455 11 11
IMPROVEMENTS.						
Kensington Road, Purchase of Land in Earl's Court-lane, and expense of Conveyance	206	5	4			
Harrow Road, widening Road at Kensal Green, new Church, Tradesmen's Bills, Day Labour, &c.	74	13	11			
						280 19 3
						£71,058 9 2

These details are given at the greater length, because they exhibit the working of a system of consolidation which has given universal satisfaction; one which it is much to be regretted, does not embrace the trusts on the south side of the river; and one which, in many of its principles, admits of extension to the crowd of petty paving, cleansing, and lighting boards, which infest the town. This term, harsh as it may appear, does but express the feeling of a great mass of the most respectable rate-payers, who will have no concern in the cabals of bodies so unimportant, at the same time that they are thoroughly discontented with the rates and their expenditure. Besides those who pay them, no one else hears of such bodies as the Commissioners, Trustees, and Vestrymen, who expend them at discretion. The constitution of the Metropolitan Commission of Roads may not be one for imitation in any further consolidation of trusts; but its economy, efficiency, and annual render of accounts to the public at large, are advantages well worthy of general extension. Great service would, indeed, be rendered by the House of Commons provisionally calling for the accounts of all local trusts exercising a power to tax the inhabitants of any district of the Metropolis.

Statistics of Crime in England and Wales for the Years 1842, 1843, and 1844. By F. G. P. NEISON, Esq., F.L.S., F.S.S., &c.

[Read before the Statistical Section of the British Association at Southampton, 15th September, 1846.]

IN the present paper, an analysis is attempted to be made of the state of Crime in England and Wales, from the returns furnished by the Home Office, for the years 1842, 1843, and 1844.

The first point to which attention will be directed, is the influence of age in the production of crime, which is a necessary element in all inquiries concerning the amount and progress of crime, in various districts and during various periods.

As the census of the population was taken in the year 1841, and as the return of criminals is for the three succeeding years, it will be necessary to calculate the population for those years, and the following formula was employed for that purpose:—

$$\lambda \pi + \left(\frac{\lambda \pi - \lambda \beta}{20} \right) \theta = \log. \text{ of the population at the given term of } \\ \text{life for the mean time of the period required,} \\ \text{in which}$$

β = the corrected population at the given age on the day of the census in 1821,

π = the same for 1841, and

θ = the period elapsed in years and days since the day of the census in 1841.

Previous to applying the above, the following correction was made for the unenumerated ages in the respective censuses of 1821 and 1841, viz.—

a = population whose ages were ascertained,

b = total population, and

x = the number enumerated at any particular period of life; let

$\lambda b - \lambda a = y$, then

$y + \lambda x = \log. \text{ of the actual number alive at the period of life } x, \\ \text{provided the age of every person had been ascertained.}$

The same correction was also applied to the enumeration of ages in the criminal returns for the respective years.

The preceding corrections having been applied to the numbers given in the Reports of the Census Commissioners, and also to the numbers given in the Home Office Returns of criminals, Tables A and B have been produced*.

In the second column of each table will be found the corrected population for England and Wales at the respective ages, for each of the years 1842, 1843, and 1844; and in the third column the total populations for those years at each term of life; the fourth column represents the number of criminal offenders in England and Wales during each of the same three years, and at each term of life; and the fourth column contains the totals for the three years. These lead to the consideration of the fifth column, which shows the ratio per cent. of criminal offenders at each term of life, to the population

* For these and the other tables see Appendix.

at the same term of life. An examination of this column will immediately show its importance and its bearing on criminal statistics. The tendency to crime among the male population at various terms of life, will be found in Table A to vary from $\cdot 7702$ per cent. to $\cdot 1694$ per cent.; or, in other words, the tendency to crime at one period of life is more than quadruple that at another. In Table B, similar results will be found for the female population, but with a lower specific and absolute intensity to crime. Over the whole male population of England and Wales, the tendency to crime will be found to be $\cdot 2978$ per cent., but for the female sex it will be found to be $\cdot 0633$ per cent.

One very striking and important feature in Table A is the fact, that more than one-fourth of all the criminal offenders in England and Wales, will be found to be at the quinquennial period of life, 20 to 25; and, further, that the number of criminals in the same period, exceed those in the succeeding quinquennial period by at least 63 per cent. On a comparison of Tables A and B, it will be found that the tendency to crime in the female population is only 21 per cent. of that in the male population, and if the term of life, 20 to 25, be taken, the amount of crime among females will be seen to be only 19 per cent. of that among males, or, in other words, there is five times more crime in the male population than among a like number of the female population of the country. Two most important facts thus disclose themselves, first, that the great amount of crime is committed at a given term of life, and second, that while 1 in every 336 of the male population is yearly guilty of a criminal offence, in the female sex the number is 1 in every 1581 only.

These facts being established, it will follow that, although in two different districts, the tendency to crime in each sex, at the respective terms of life, may be precisely the same, still should there be a difference in the distribution of the population over the various periods of life, or a higher proportion of males in the one district than in the other, the usual methods of investigating such questions, in which the element of age is not considered, would lead to the fallacious conclusion, that in the one place there was a greater tendency to crime than in the other. In order to more fully establish this point, Tables C and D have been prepared, containing the male and female population in England and Wales, for the respective terms of life recognized in the Home Office Returns for criminal offenders. These numbers are collected and arranged from the census returns for 1841; and in Table E the same facts in relation to the male sex will be found set forth in a different form, with an additional column, representing the ratio per cent. of the population at each term of life to the whole population of the male sex in every county.

The peculiar results arising out of the three preceding tables, and the influence which a difference in the distribution of the population, according to age, has in altering the ratio of crime to the population, when the element of age does not enter into the inquiry, will at once become evident. In Tables A and B it was shown, that the tendency to crime at some periods of life was more than quadruple that at other periods, and by Table E it appears, that the ratio of the population alive at the respective periods differs widely in the several counties. In Anglesea, Carmarthen, and Dorset, the proportion of the population alive at the quinquennial term of life, 20 to 25, is

under 8 per cent. of the whole, but in the counties of Lancaster, Middlesex, and Monmouth, the proportion varies from 10 per cent. to upwards of 11 per cent. It hence follows, that if even the tendency to crime were precisely the same at the respective terms of life in those districts, there would still be, in reference to the whole population, an apparent excess of crime in the three latter counties, from the fact that they contain a greater proportion of their population at that term of life at which the tendency to crime is the greatest, and, consequently, any method of investigating crime, in which the element of age is not introduced, can never show the relative amount of crime in different districts, nor in the same district at different periods of time.

To still further establish this truth, Table G has been constructed on the hypothesis that in the various counties and districts the tendency to crime was the same as prevailed in England and Wales during the years 1842, 1843, and 1844, as represented in Table A. The actual populations of those places were taken as given in Table C. In Table A it will be seen that the actual proportion of male criminals in England and Wales during those three years was 1 in every 336 of the whole male population. If the population of the kingdom, however, during those years, had been under the same distribution in regard to age as in the year 1821, the proportion of criminals would have been 1 in every 365 only of the population; but, on the other hand, if under the same distribution as the city of Glasgow, crime would appear to have been as high as 1 in every 304. Again, the difference of distribution of even two districts in the metropolis is such as to produce in Bethnal Green the proportion of 1 in 338, while in St. George's, Hanover Square, the ratio would be as high as 1 in 280, showing a difference or error in the method of inquiry, thus resorted to, of about 21 per cent. An inspection of the results for the several counties will furnish evidence of similar irregularities. In Anglesea, Cardigan, Carmarthen, Dorset, Merioneth, Montgomery, and Pembroke, the ratio of crime is 1 in 360 and upwards; but in Glamorgan, Lancaster, Middlesex, and Monmouth, the average is from 1 in 325 to 1 in 313, being a difference of at least 18 per cent. It is therefore evident that the element of age is an essential item in every inquiry or investigation into the relative amount and progress of crime in different districts, and that calculations in which that element is neglected cannot be relied on, for we have here examples of districts in which the same ratio of crime is assumed to prevail, and yet there would appear to be an excess of crime in some places of 20 per cent. above that which would seem to prevail in others.

The arguments and illustrations now brought forward to show the necessity of viewing age as an element in all inquiries into the prevalence of crime, it will be seen, apply with equal force to the question of sex.

Over the whole male population of the country the tendency to crime is nearly five times greater than in the female sex; and since in some districts of the country the proportion of the population of the two sexes at the various periods of life is very different, the results of any inquiry in which the sexes are not distinguished must be subject to very great fallacies, showing errors to a greater extent than even those connected with the element of age, as that element would equally

affect the present case, and be further vitiated by the disturbing influence of sex. It is therefore obvious that in every properly conducted inquiry in criminal statistics a separate analysis must be made for each sex.

Some very curious and interesting features will be found to connect themselves with Tables A and B. From the age of 20 it will be found that in the male sex crime in each successive term of life, given in the tables, decreases at the rate of 33·333 per cent., and in the female sex, at the rate of 25 per cent.; so that if two tables were formed, in one of which the numbers resulting from such a law were given, and in the other the actual number of criminals, the one table, particularly in reference to the female sex, would be almost identical with the other. The following abstract will show the ratio of criminals according to the actual results for England and Wales during the years 1842, 1843, and 1844, and also according to the theoretical law just alluded to; and it will be seen that in only one of the terms of the male sex is there any material difference between the two classes of results, while for the female sex, the actual and the theoretical results are almost identical throughout the whole of the table.

Proportion per cent. of Crime to the Population.

Ages.	Males.		Females.	
	Actual Results.	Law.	Actual Results.	Law.
20—25	·7702	·8536	·1459	·1452
25—30	·5989	·5691	·1141	·1089
30—40	·3794	·3794	·0817	·0817
40—50	·2504	·2529	·0643	·0613
50—60	·1694	·1686	·0466	·0460

In statistical inquiries the discovery of any such law as that now pointed out is of the first importance, for it gives evidence of the existence of some very powerful and intense element connected with the determination of the particular class of results, and but little influenced or disturbed by external circumstances, which, if once clearly eliminated, may admit of such modifications in its conditions as will lead to practical and highly beneficial modes of administration tending to elevate the moral and political condition of the people. It is only from a properly determined series of results, developing general principles, in the truth and safety of which confidence can be placed, that any effective legislation can result; and without the appearance of some numerical laws those principles themselves must remain comparatively obscure, and legislation continue impeded. It will be found that this theoretical law is not peculiar to the three years to which the preceding facts relate, but is a proper and distinctive feature in the conditions of society under which crime appears in other years. The preceding tables have relation to the years 1842, 1843, and 1844 only, because prior to the year 1842 the Criminal Returns published, by the Home Office, gave the ages of criminals for a division of ages which could not be assimilated with the periods of life recognised in the

census; and to have introduced them would only have lessened the value of the facts now presented; but from the following Table it will be seen that so far as the Criminal Returns for the four years 1838-1841 go, traces of the same law of crime are clearly observable.

Ages.	Males.					Mean of 4 years	Per cent. to whole popula- tion of		Mean of 4 years.	Females.				
							Males	Females						
	1838	1839	1840	1841	Total					Total	1841	1840	1839	1838
Under 12	317	363	409	416	1,505	376	..	..	66	272	82	80	61	49
12—16	1,933	2,062	2,177	2,240	8,412	2,103	..	..	428	1,711	474	477	402	358
16—21	5,562	5,602	6,239	6,188	23,591	5,898	7587	1621	1,303	5,212	1,385	1,403	1,259	1,165
21—30	5,935	6,184	6,815	7,296	26,220	6,555	4939	9992	1,494	5,935	1,625	1,609	1,421	1,280
30—40	2,733	2,935	3,366	3,413	12,447	3,112	3129	7223	759	3,038	849	800	716	673
40—50	1,226	1,300	1,495	1,543	5,564	1,391	1867	4551	428	1,714	451	465	402	396
50—60	545	612	656	656	2,469	617	1249	4331	175	700	175	194	185	146
60 and upwards	289	298	342	332	1,261	315	..	..	83	331	86	87	81	77
Unknown.	365	475	476	486	1,802	450	..	..	75	300	73	97	85	45

It must thus appear evident that whatever means may be employed for the prevention of crime, or the treatment of criminals, they ought to show their influence and bearing in the male sex chiefly between the ages of 20 and 25. The following abstract will show the relative tendency to crime in the two sexes at the various terms of life.

Ages.	Ratio per cent. of Criminals to the Population, yearly.		Number of the Population to which there is one crime yearly.		Excess per cent. of Crime among Males.
	Males.	Females.	Males.	Females.	
Under 15	·0494	·0080	2024·7	12500·0	475·1
15-20	·6841	·1495	146·2	668·9	350·7
20-25	·7702	·1459	129·8	770·4	493·3
25-30	·5989	·1141	167·0	876·4	424·8
30-40	·3794	·0817	263·6	1224·0	364·3
40-50	·2504	·0643	399·4	1555·2	289·4
50-60	·1694	·0466	590·3	2145·9	265·2
60 and upwards	·0813	·0186	1230·0	5373·5	336·8

It will be observed that in the male sex the tendency to crime at ages 15-20 is somewhat less than in the next quinquennial period of life; but a similar result does not appear for the female sex, as the tendency to crime at those two periods of life is nearly equal. In the Home Office Returns the ages of the offenders under 15 years is not distinguished; but if the age of criminals under 15 be held to be between the ages of 10-15, it will alter the expressions at that term of life in Tables A and B, and in the above abstract from ·0494 per cent. to ·1607 per cent. for the male sex, and from ·0080 per cent. to ·0266 per cent. for the female sex.

In Table F is given the number of criminal offenders in each county of England and Wales, at the respective terms of life recog-

nized in the Home Office Returns, for each of the years 1842, 1843, and 1844; also the total number of criminals in the various counties, at each term of life for the three years, as well as the average number for the three years.

The next table to which attention is directed (Table H) is one of some importance, as it shows the actual yearly average number of criminals in each county of England and Wales, during the years 1842, 1843, and 1844, and for every term of life. In a parallel column is given what would have been the number of criminals at the same terms of life, provided the same tendency to crime had prevailed in each county as over the whole kingdom. A comparison of the parallel columns will at once show, whether the actual crime in any county be above or below the average of the whole kingdom, and also at what term of life the increase or decrease of crime prevails. A further analysis of the same facts will be found in Table J, in which a correction is applied for the increase of population to the mean times of the years 1842, 1843, and 1844; and in the last column of that table will be found the difference per cent. between the actual amount of crime in each county, and that which would have resulted if the same tendency to crime had prevailed as over the whole of England and Wales.

Having thus found the actual amount of crime in each county, in relation to the ages of the population, as well as the average crime in each county at the same ages, according to the ratio for the whole kingdom, and observing the marked differences in the amount of crime in various districts; some having an excess of crime of more than 52 per cent. above the average of the country, while other districts are below the average by at least 80 per cent., it becomes an important problem for solution, to discover, if possible, the nature and character of that element in the condition of the respective districts which shows so remarkable a disparity, and exercises so powerful an influence in the development of crime.

Various methods suggest themselves of effecting such an analysis as could possibly lead to the discovery of any agent, so materially influencing the moral and social state of society. The first arrangement adopted is that supposed to connect itself with the manufacturing or agricultural interest of a district. In Table I the manufacturing and mining counties are divided into four groups,—the northern mining districts; the cotton and woollen manufacturing districts; the cotton, woollen, silk, and lace-fabric districts; and the hardware, pottery, and glass manufacturing districts. Again, the agricultural counties will be found to be divided into three groups,—the North-Eastern and Eastern, the Midland, and the South and South-Western districts. In each of these combinations the actual number of criminals at the respective periods of life is shown, as well as the number that would result in those districts at the same ages, if the same tendency to crime prevailed as over the whole of the kingdom.

In Table K the same facts will be found under a more convenient arrangement. The first column of each group shows the amount of crime at each period of life, assuming the intensity to be the same as over the whole country, and also that the population of each group was the same as at the period of the census in 1841. Under the total

of these results will be found the corrected total, making allowance for the increase of population during the years 1842, 1843, and 1844. These corrections were taken from Table J, and in the early part of this paper the formula for the correction is given. In the next column of each group will be found the actual number of criminals at the same ages, and in the third column is set forth the difference per cent. between the calculated and actual amount of crime. The results of this column are of the utmost importance, as they show not only whether the total amount of crime in a given district be above or below the average for the whole kingdom, but they also point out what are the periods of life at which the most marked and important differences exist, thus leading the way to more definite and intelligible views on criminal jurisprudence. For example, if the whole group of the Great Northern and Midland mining and manufacturing districts be taken, it will be seen that there is exactly 2·3 per cent. less crime than would be according to the average for all England and Wales, while in the agricultural counties there is an excess of 5·9 per cent. Again, if the various groups of the manufacturing and mining districts be examined, it will be found that in the northern mining district, which includes Cumberland, Northumberland, and Durham, crime is 52·1 per cent. below the average, and in the cotton and woollen manufacturing district, which includes Lancashire and Yorkshire, crime is 7·0 per cent. under the average of the whole country; but, on the other hand, in the two remaining districts, the one composing the cotton, woollen, silk, and lace-fabric district, including Chester, Derby, Nottingham, and Leicester, and in the other, composing the hardware, pottery, and glass manufacturing district, including Staffordshire, Warwick, and Worcester, there is an increase of crime, the former being 8·5 per cent. and the latter 33·5 per cent. above the average for the whole kingdom. Contrasting the various sections of the agricultural group with them, they will be seen to present a remarkable uniformity, the excess of crime in the first division being 5·3 per cent., in the second 5·7 per cent., and in the third 6·8 per cent., while the excess for the whole of the agricultural districts combined has been shown to be 5·9 per cent.

It is, therefore, evident that there is something in the mining and manufacturing condition of the people, having a powerful influence in regulating the amount of crime, as in one portion there is an excess of 33·5 per cent., while in another, crime is 52·1 per cent. below the average; and although the whole combined shows a less degree of crime than the average of the whole agricultural districts, and also less than the average of all England and Wales; still the remarkable disparity existing between particular manufacturing groups bears evidence that there must be some peculiar element operating in the social and moral state of the people, which it is highly important to understand. Before, however, entering further into that part of the subject, it may be better to refer to another feature of importance in Table K, and for the first time admitting of anything like a clear view of the question.

It has been usual of late to refer to juvenile delinquency as an explanation of the increase of crime in many districts; in fact, so powerfully has this been felt in some quarters, that the most strenuous efforts have been made, with a view of reducing the cases on the criminal

alendar, and yet it will be seen that the facts of the case do not support the supposition, that either the increase or decrease of crime in particular districts is materially, if at all, affected by fluctuations in juvenile crime. This will appear most evident by an inspection of any one of the nine groups, or combinations, given in Table K. If the general result for any one, or all of them, whether in connexion with an increase or decrease of crime, be compared with the corresponding features at the juvenile ages, there will not be found a single instance, in which the character of the general result is so strongly confirmed by the facts at the younger ages, as by those at the more advanced periods of life. Should any change or movement be found in the criminal returns of any particular district, that change will be discovered to be promoted, not so much by fluctuations at the terms of life 10—15 or 15—20, as by the increase or decrease among those persons of more advanced ages. The general total for the mining and manufacturing districts shows a difference of + '4 per cent., but at the juvenile ages under 15 and 15—20, the differences are —1·9 per cent. and —7·6 per cent. respectively, so that while the gross results are positive, those at the younger ages are negative. Again, the general total for the agricultural districts is +9·1 per cent., but the result for under 15 is —12·3 per cent., and for 15—20 only +3·2 per cent. Relations precisely similar will be found in each of the other groups, thus leading to the conclusion that, in the juvenile period of life, the tendency to crime is within the influence of more constant laws or elements, and therefore shows less fluctuation than in mature life, when the conduct and disposition of individuals come more under the control of external circumstances.

In such groups of counties and districts as those given in Table K, it is evidently of the first importance, that the manufacturing or agricultural character of the districts should, in reality, be a decided and prevailing feature, otherwise their supposed relation and influence on crime, can never be determined. There are no counties or great districts of the kingdom, in which either agriculture or manufactures prevail to the entire exclusion of other interests, but still there are many districts in which either agriculture or manufactures form so decided a feature, that if the moral and social conditions thence arising have any influence, on the amount of crime, the evidence of that supposed influence must be observable. In England and Wales, at the period of the last census, the average ratio of agriculturists to the whole population was 7·9 per cent., and the first group of Table L contains the results for the ten counties in which there was found to be the least proportion of agriculturists, and the second group of the same table contains the results for the eleven counties in which the highest ratio of agriculturists was found. It will be seen that the ratio of agriculturists for each county is set forth in the second column, in the third is given the average annual ratio of crime for the whole kingdom, and in the fourth, the actual crime in the given county. These results are taken from Table J, and a comparison of the total of the two last columns will show whether the crime in each group or section is above or below the average for the whole kingdom. If then the greater or less prevalence of agriculturists in a community has any material influence on the degree of crime, it might reasonably

be looked for in the results of those two sections, but it will be found that in the group of most agriculturists there is an excess of 6·0 per cent. of crime above the average of England and Wales, and by excluding the county of Lancaster, which is of sufficient magnitude to form a group of itself, the excess will still be 4·6 per cent.; compare this with the results for the section containing the highest average of agriculturists, and the excess of crime will in that also be found to be exactly 4·6 per cent., and so far therefore as a maximum or a minimum ratio of agriculturists in a community is concerned, there seems to be little or no difference in the amount of crime. On reflection, it will appear that a high ratio of agriculturists in any district does not necessarily imply a low ratio of manufacturers, and *vice versâ*, as both interests may co-exist in maximum or minimum in any district; another combination was therefore adopted, in order to determine the influence of manufactures.

In England and Wales the average ratio of manufacturers to the whole population is 16·5 per cent., and in the third group of Table L will be found the results for the eight counties in which there is the highest ratio of manufacturers. It then appears that the actual crime exceeds the average of the whole country by 18·2 per cent., and, exclusive of Lancashire and Middlesex, by 17·7 per cent.; but in the fourth group of the same table, which is composed of the counties having the least average of manufacturers, the actual crime is under the average by 2·9 per cent.

It is evident that the preceding combinations are liable to the objection that the influence of the high or low ratio of agriculturists may be neutralized by a corresponding high or low ratio of manufacturers, and hence the preceding curious results. To meet this objection groups fifth and sixth have been formed.

It has already been stated that the ratio of agriculturists to manufacturers in England and Wales is 7·9 per cent. to 16·5 per cent.; difference, 8·6 per cent. In order to obtain a group of counties in which the manufacturing interests formed a proper and decidedly prevailing feature, group 5 has been formed of those counties only in which the manufacturing interest exceeds the agricultural interest by at least 33·33 per cent. more than the above difference for the whole kingdom; and the result arrived at is, that the actual crime exceeds the average of the country by 15·0 per cent., and excluding the counties of Lancashire and Middlesex, the excess is 10·8 per cent. Again, in the sixth group of Table L the results of those counties are given, in which the agriculturists are above the average ratio by at least 50 per cent.; and therefore those two last groups must exhibit the most striking contrast between each other in respect to their manufacturing and agricultural populations. If then the predominance of either the one or the other interest has any influence on the amount of crime, should manifest itself in the results of these two groups; but it will appear that the actual crime in the last of these groups also exceeds the average of the whole kingdom; the excess being 4·2 per cent.; and although this difference falls somewhat short of the other, it is not of so marked a nature as to demand further investigation.

Carrying out the same mode of classification, group 7 has been

formed of the seven counties in England and Wales, in which the manufacturing and agricultural interests were as nearly as possible equal, in no instance differing by more than .6 per cent.; and it is somewhat remarkable to find that in this case the excess of crime is 4.5 per cent., differing from the result in the preceding group by only .3 per cent. It is therefore evident that the mere fact of the difference in the habits and condition of agriculturists and manufacturers can have very little to do with the increase or decrease of crime, and that some other solution of the very great disparity found to prevail between particular districts must be sought for. The following abstract shows the difference per cent. between the actual amount of crime in each of the districts or groups of Table I., and the average for the whole of England and Wales:—

MALES.

GROUP.	Average Crime.	Actual Crime.	Difference per cent.
Least Ratio of Agriculturists (1).....	4934.86	5,163	+ 4.6
Highest Ratio of Ditto (2)	3009.05	3,150	+ 4.6
Highest Ratio of Manufacturers (3)	3053.01	3,593	+ 7.7
Least Ratio of Ditto (4)	2001.25	1,941	- 2.9
Manufacturers 33 $\frac{1}{3}$ per cent. above the average (5)	3897.17	4,321	+10.8
Agriculturists, 50 per cent. above the average (6)....	3411.13	3,555	+ 4.2
Agriculturists and Manufacturers nearly equal (7)....	2348.68	2,456	- 4.5
Greatest Wealth (8)	2527.31	2,303	- 8.8
Least Wealth (9)	2541.67	2,512	- 1.1

The preceding combinations have shown that in the least as well as the highest agricultural districts the excess of crime was precisely equal, namely, 4.6 per cent. It was likewise seen that in the districts in which there is the highest average of manufacturers, as well as that in which there is the highest average of agriculturists, and also that in which the two interests are equal, the tendency to crime differs very little. It may therefore be safely concluded that neither of them give any clue to work out the problem:—What is the element or feature in the condition of life and social state of society which produces in one great community an excess of crime amounting to 52.1 per cent., and in another community reduces crime below the average 3.5 per cent.?

Another of the arguments usually adduced in explanation of the greater or less prevalence of crime is the comparative wealth or poverty of particular districts. No very exact means exist by which to determine in what districts or counties there is the highest or least proportion of wealth; but so far as means are available, an attempt has been made to test the value of the argument advanced.

In England and Wales, according to the last census returns, the average ratio of persons of independent means is 2.8 per cent.; and by taking those counties as given in group 8, in which the proportion is increased at least 33 per cent., it will be found that the actual crime is below the average of the whole kingdom by 8.8 per cent. put in connexion with this it is curious to observe the results of group 9, which is made up of those counties in which the proportion of persons of

independent means is 33 per cent. under the general average, for in that case also crime is below the average of the whole country, although to the extent of 1·1 per cent. only. No powerful or active element can therefore be traced in connexion with this feature sufficient to account for some of the widely different results already arrived at.

In this country no satisfactory test can at this time be employed in order to discover those districts in which the people generally receive a greater or a less degree of instruction; but perhaps the very best available test is that furnished by the returns of the Registrar-General. Under the New Marriage Act every person married must sign the Marriage Register, and an abstract has been made for each county showing the number of persons signing such Register with their names, and the number signing with their marks; so that if the mere mechanical qualification of an individual being able to sign his name be regarded as evidence of the relative degree of education which he has received, it becomes possible to classify the several counties in England and Wales according to the degree of education of its population. This test is of the more value from the fact that at that period of life at which the greatest amount of crime takes place there is also the greatest number of marriages; and, consequently, both classes of facts will have a more immediate and direct relation to each other.

If the term education were held to signify the culture and elevation of the moral character, it is evident that its immediate and essential influence is to destroy crime, in fact in this sense, education and freedom from crime must bear the relation to each other of cause and effect, and therefore when education is at a maximum, crime must of necessity be at a minimum; but if the term education be used in its ordinary acceptation, and merely imply instruction, it then becomes a fit and important question, whether education in this limited sense has any influence on the development of crime.

The proportion of the male population in England and Wales signing their marriage certificates with marks is 33 per cent. The first group in Table M is made up of those counties in which the proportion signing with marks exceeded the general average by at least 33·33 per cent., and may be called the counties of least degree of education. The second group in the same table is composed of those counties in which the proportion is at least 25 per cent. under the average, and may be termed the group of highest degree of education. On comparing the results of these two groups, it is found that where there is the least degree of education there is an excess of crime of 13·2 per cent.; but in the group of the highest degree of education the actual crime is 30·7 per cent. under the average of the whole kingdom. To this extent the influence of education is evident.

But it may be held, that in the two groups now referred to the difference in the amount of crime may be owing to the influence of some other element than simply education. In so far as the subject is yet interrogated it may be fairly said, that a high state of education is always found accompanied with a reduced rate of crime, and that a low state of education carries with it an increased amount of crime; but it still remains to be determined whether that difference may not arise through the agency of some other element. It may be argued that a high state of education is generally the concomitant of wealth

or more advanced position in the social scale of society, and hence the reduced rate of crime; and that a low state of education is usually associated with a peculiar grade of employments and manufactures, subject to marked fluctuations in prosperity, exposing those engaged in them to deprivation, temptation, and vice, and thus directly increasing the amount of crime, which is falsely believed to have arisen from want of education instead of the poverty and distress co-existing with it. To try the strength of this objection a still further analysis of the facts presented will be necessary.

If it were possible to arrange the several counties or districts into sections, so that when any two sections were compared the communities composing them were as much as possible similarly circumstanced in regard to manufactures, in regard to agriculture, in regard to wealth, in fact that the two differed from each other only in the degree of instruction or education, it might then be said, at least so far as statistical tests are at present available, that the two sections or classes compared are, with the exception of education, placed under exactly the same social and political conditions of society; and should the ratio of crime prevailing in those two districts differ from each other, that must of necessity arise from the differences existing in their degrees of education.

On referring to Table N it will be seen that each group is composed of the same counties which formed the various classes or combinations in Table L; but it will be further seen that each of these groups is divided into two sections; the right-hand section of which, section (*b*), will be found to contain those counties in which there is the highest degree of education, and the left-hand section, or section (*a*), those counties with the least degree of education; and as the counties in each differ in respect of education only, the difference, if any, in the results of the respective sections of these groups will furnish the argument for or against the influence which education may have on the amount of crime.

In group 1, Table N, being the class of "least agricultural" counties, it will be found that in the section of least education there is an excess of 16·6 per cent. of crime; and excluding Lancashire, the excess of crime above the average of the country will be 25·8 per cent., but in the section of most education the actual crime will be found under the average, at least 12·8 per cent. Again, in the group of "greatest agricultural" counties, there is an excess of 8·4 per cent. in the section of least education, and in the section of most education the excess of crime is only ·9 per cent.

In the third group, representing the "greatest manufacturing" counties, where there is least education the excess of crime is 24·8 per cent., and excluding Lancashire, the excess is 48·4 per cent; but in the section of highest education the excess is 24·2 per cent., and excluding Middlesex, the excess of crime is not more than 16·4 per cent. In the next group in order, that consisting of the "least manufacturing" counties, there is an excess of 4·3 with least education, and crime is 8·7 below the average where a higher degree of education prevails.

On referring, however, to groups 5 and 6 of Table N, more decidedly manufacturing and agricultural counties will be found, and in them very striking evidence of the influence of education will

appear. In the manufacturing group it will be seen that in the section of least education crime is above the average 15·8 per cent. ; but in the section of most education crime is below the average 7·2 per cent., and in the least education section, if Lancaster be excluded, the excess of crime will be 23·2 per cent. Again, in the decidedly agricultural counties, with the lowest grade of education crime is in excess 10·4 per cent. ; but with the higher scale of education, there is less crime than the average of the country by 2·6 per cent. In the 7th group of the same table, containing the counties in which the manufacturing and agricultural interests are nearly equal, it will be found to bear similar evidence as to the influence of education on crime, for with the inferior degree of education there is an excess of crime of 15·8 per cent. ; but with the comparatively higher degree of instruction crime is 9·3 per cent. under the average.

The 8th and 9th groups in Table N furnish a still more remarkable proof of the same principle. On referring to Table L it will be found that crime in both of these groups was under the average of the whole kingdom ; but here when subdivided according to the means of education, it is found in the group of greatest wealth that the section of least education shows an excess of crime amounting to 9·2 per cent., and that the section of most education is 29·4 per cent. below the average in crime. The results for the group of least wealth go to establish the same fact, there being an excess of 11·3 per cent. with the least degree of education, and with the best education a less amount of crime than the average by 13·5 per cent.

It is thus found that in every instance an increase of crime is associated with a low state of education, but where a better state of education prevails there is as constantly found to be a less amount of crime. The following abstracts will give a condensed view of the results obtained in Table N.

Group of Counties.	Inferior Degree of Education.		Higher degree of Education.	
	Calculated crime.	Actual crime.	Calculated crime.	Actual crime.
Least Agricultural.....	2009·89	2,780	2724·97	2,381
Greatest ditto	1503·00	1,630	1506·05	1,520
Greatest Manufacturing	1737·38	2,579	1315·63	1,532
Least ditto	868·85	906	1134·40	1,035
Manufacturing interest, 33½ per cent. above the average	2334·46	2,886	1562·71	1,435
Agricultural interest, 50 per cent. above the average.....	1788·74	1,975	1622·41	1,580
Manufacturing and Agricultural interests nearly equal.....	1296·58	1,502	1052·10	954
Greatest wealth	1343·44	1,467	1183·87	836
Least wealth	1261·04	1,405	1280·63	1,107
Total.....	14343·38	17,130	13382·77	12,380

An examination of the preceding figures cannot fail to render manifest the powerful influence which even the simple qualification of indi-

viduals being able to affix their signatures, with or without marks, has on the amount of crime in the various districts of the country. Contrasting the totals for the various sections of each group of counties, it will be seen that, in the section of inferior education, the excess of crime is 19·4 per cent., while in the section of higher education there is 7·5 per cent. less crime than the average of the kingdom.

In the next abstract, the difference per cent. between the actual crime in each of the preceding groups, and the average rate for the whole of England and Wales is given. When the amount of crime is above the average, the result will be represented by the sign +, but when the actual crime is below the average, that will be expressed by the sign —.

Group of Counties.	Difference of crime.		Difference per cent. in favour of Education.
	Inferior degree of Education	Higher degree of Education	
Least Agricultural.....	+ 28·8	— 12·6	38·4
Greatest ditto	+ 8·4	+ 0·9	7·5
Greatest Manufacturing	+ 48·4	+ 16·4	32·0
Least ditto.....	+ 4·3	— 8·7	13·0
Manufacturing Interest 33½ per cent. above the average	23·2	— 7·2	30·4
Agricultural Interest 50 per cent. above the average	+ 10·4	— 2·6	13·0
Manufacturing and Agricultural Interest, nearly equal	+ 15·8	— 9·3	25·1
Greatest wealth.....	+ 9·2	— 29·4	38·6
Least Wealth.....	+ 11·3	— 13·5	21·8
Total average of preceding groups	+ 19·4	— 7·5	26·9
Group in which those signing with "marks" exceeds the average by 33½ per cent. (Table M).....	+ 13·2	....	} 43·9
Group in which those signing with "marks" is less than the average 25 per cent. (Table M).....	....	— 30·7	

The last column of the preceding abstract shows the difference per cent. in the rate of crime in the badly-educated sections of each group, over that which prevails in the better educated sections of the same group: and it must be regarded as a powerful argument in favour of even the small degree of education or instruction here recognised, that not a single instance has appeared in which a marked, and generally a most striking difference, averaging above 25 per cent., does not show itself in favour of the better educated districts. All the other combinations and arrangements made to determine the active element in the increase and decrease of crime were unsuccessful, and produced no satisfactory result; in fact, they did not lead to the discovery of any condition or circumstance of life which was peculiar to one district more than another; but, as soon as the educational test is introduced, it immediately analyzes groups and districts into a uniform and regular series, which before showed the most contradictory results. If a few exceptions appeared, they might suggest the propriety of a still further refinement in the analysis, but the regularity is so remarkable, that it immediately becomes evident that one very powerful element at least

in the question has been determined, and one on which legislative and preventive measures may easily be founded for the reduction of crime and the elevation of the moral condition of the people.

On a careful consideration of the evidence and facts brought forward, it will be seen that, although the peculiarities in the mining, manufacturing, agricultural, and other conditions of the population are not sufficient to account for the great differences in the degree of crime prevailing in various districts, still it is clear, that the results arising out of those peculiar conditions are such as to show that they exercise a secondary influence on the question of crime, and therefore ought not to be overlooked in any complete investigation.

Table O was formed in order to show, that in those districts in which there was an equal difference in the amount of crime from the average of the country, no peculiar element could be traced which was common to the whole counties composing each group.

It is not the object of the present contribution to enter at greater length on this all-important field of statistical inquiry. The original purpose was more to offer a few suggestions on the methods which should be followed in such researches, than to elicit any valuable truths on the causes, motives, and extent of crime. It will at once be seen, that to give sufficient weight to an investigation like the present, it should have been carried over a longer series of years, but, as already stated, the Home Office Returns do not admit of the methods employed being carried further back than the year 1842.

The latter portion of this inquiry has had exclusive reference to the state of crime in the male sex, but as all the elementary facts for both sexes are given in the early part of the paper, and as the same methods are equally applicable, individual inquiries can easily answer any questions relative to the female sex for themselves. To have gone over the whole subject for the female sex would have exceeded the limits assigned to this paper.

The question of recommittals is also a highly important one in the determination of the ratio of criminals to the population, but defects in the system of registration, as well as the difficulties in respect of age, present themselves, and interfere with any attempt at a proper analysis.

Nothing has yet been said on the nature and extent of the various description of crimes and offences. In the early part of this communication it was shown, that in investigating the question of crime in its aggregate character, no satisfactory or true results could possibly be obtained, unless the element of age entered into the inquiry. If it be then so essential an element, in discussing the question of crime in its general aspect, it must be evident that in its specific form there is still less chance of success, when without the means of employing the element of age. It is, therefore, to be lamented, that although in the Home Office Returns the number of criminals guilty of particular offences is given, no mention is made of their ages in connexion with specific forms of crime. This defect might be easily remedied. Local and provincial police-courts and districts have seen the value of such information, and it is to be regretted that the authorities at headquarters should still be indifferent to the great advantages that must result from affording inquirers into criminal statistics, a means of introducing so important an element into their investigations.

TABLE A.

Criminal Offenders in England and Wales in 1842, 1843, and 1844, with the ratio of Crime to the Population at the various Terms of Life calculated to the corrected Population for the respective Periods.—Males.

Ages.		Population.		Criminals.		Ratio of Criminals to total Population.
Under 5	1842	1,056,117	3,192,848			
	1843	1,064,261				
	1844	1,072,470				
5—10	1842	962,144	2,914,110			
	1843	971,341				
	1844	980,625				
10—15	1842	891,542	2,708,434			
	1843	902,764				
	1844	914,128				
Under 15	1842	2,909,803	8,815,392	1,463	4,351	·0494
	1843	2,938,366		1,465		
	1844	2,967,223		1,423		
15—20	1842	793,575	2,416,939	5,755	16,534	·6841
	1843	805,586		5,633		
	1844	817,778		5,146		
20—25	1842	739,960	2,344,349	6,531	18,056	·7702
	1843	756,457		6,145		
	1844	847,932		5,380		
25—30	1842	624,834	1,841,996	4,008	11,031	·5989
	1843	638,765		3,750		
	1844	578,397		3,273		
30—40	1842	1,020,198	3,121,879	4,437	11,843	·3794
	1843	1,040,491		4,058		
	1844	1,061,190		3,348		
40—50	1842	761,076	2,319,422	2,117	5,807	·2504
	1843	773,078		1,935		
	1844	785,268		1,755		
50—60	1842	503,017	1,527,775	960	2,588	·1694
	1843	509,233		814		
	1844	515,525		814		
60 & upwards	1842	539,606	1,636,529	469	1,330	·0813
	1843	545,488		451		
	1844	551,435		410		
Proportion, 1 in 336			24,024,281		71,540	·2978

TABLE B.

Criminal Offenders in England and Wales in 1842, 1843, and 1844, with the ratio of Crime to the Population at the various Terms of Life calculated to the corrected Population for the respective Periods.—Females.

Ages.		Population.		Criminals.		Ratio of Criminals to total Population.
Under 5	1842	1,068,046	3,232,970			
	1843	1,077,628				
	1844	1,087,296				
5—10	1842	961,863	2,914,625			
	1843	971,510				
	1844	981,252				
10—15	1842	863,979	2,627,281			
	1843	875,707				
	1844	887,595				
Under 15	1842	2,893,888	8,774,876	243	701	·0080
	1843	2,924,845		249		
	1844	2,956,143		209		
15—20	1842	816,962	2,484,932	1,268	3,716	·1495
	1843	828,259		1,266		
	1844	839,711		1,182		
20—25	1842	843,544	2,578,901	1,356	3,763	·1459
	1843	859,533		1,243		
	1844	875,824		1,164		
25—30	1842	685,508	2,095,750	869	2,391	·1141
	1843	698,501		784		
	1844	711,741		738		
30—40	1842	1,071,235	3,270,574	944	2,672	·0817
	1843	1,090,081		907		
	1844	1,109,258		821		
40—50	1842	790,308	2,407,733	527	1,548	·0643
	1843	802,515		525		
	1844	814,910		496		
50—60	1842	537,073	1,633,585	247	761	·0466
	1843	544,494		256		
	1844	552,018		258		
60 & upwards	1842	620,788	1,886,784	115	350	·0186
	1843	628,893		110		
	1844	637,103		125		
Proportion, 1 in 1,581			25,133,135		15,902	·0633

TABLE C. *Population.—England and Wales,—1841.—Males.*

	Aged under 15 years.	Aged 15 years and under 20.	Aged 20 years and under 25.	Aged 25 years and under 30.	Aged 30 years and under 40.	Aged 40 years and under 50.	Aged 50 years and under 60.	Aged 60 years and above.	Total.
Berford	20,684	5,286	4,584	3,713	6,270	4,819	3,065	3,710	52,131
Beds	29,361	7,853	7,184	5,886	9,934	7,694	5,343	6,341	79,596
Bucks	29,242	7,790	6,449	5,430	8,912	7,207	5,018	6,179	76,227
Cambridge	31,194	8,203	7,887	6,116	9,839	7,786	4,910	5,396	81,331
Cheshire	73,390	20,302	18,470	15,309	24,738	17,617	11,494	11,206	192,326
Cornwall	67,108	17,317	13,770	11,158	18,605	14,761	10,066	11,310	164,295
Cumberland	32,256	8,855	7,792	6,247	10,195	8,112	5,948	6,513	85,918
Derby	50,695	13,755	12,026	10,484	17,095	12,719	8,769	9,680	135,223
Devon	95,058	25,727	21,277	17,604	29,491	23,864	18,206	20,822	252,049
Dorset	32,656	8,206	6,670	5,722	9,749	7,760	5,559	7,137	83,459
Durham	61,202	16,430	15,837	13,244	20,345	13,881	9,086	9,677	159,702
Essex	64,617	16,647	15,362	12,722	20,708	17,107	11,304	12,843	171,310
Gloucester	75,469	20,142	18,346	15,441	25,916	20,285	13,432	15,299	204,330
Hereford	19,586	5,502	4,782	4,169	7,125	5,956	4,270	5,476	56,866
Hertford	29,630	7,814	6,853	5,634	9,395	7,255	4,970	5,569	77,120
Huntingdon	11,075	3,005	2,693	2,163	3,352	2,756	1,802	2,099	28,945
Kent	98,569	26,710	25,731	19,715	33,474	25,299	18,058	21,928	269,484
Lancaster	303,779	85,128	81,057	69,472	113,866	75,441	44,921	39,419	813,077
Leicester	39,389	10,749	9,061	7,603	12,812	10,379	7,050	8,434	105,477
Lincoln	66,780	18,202	16,813	13,744	21,936	17,494	11,674	13,823	180,466
Middlesex	237,999	66,721	75,832	69,575	113,609	82,375	48,145	39,286	733,545
Monmouth	23,931	6,810	7,903	6,702	10,008	6,709	4,166	4,238	70,467
Norfolk	74,832	20,156	16,554	13,608	23,375	20,071	13,122	17,060	198,772
Northampton	36,439	10,169	9,008	7,197	12,112	9,495	6,465	7,777	98,662
Northumberland	44,474	12,234	11,668	9,746	15,458	11,144	7,803	8,345	120,872
Nottingham	45,795	11,811	10,216	8,789	15,554	11,957	8,112	9,147	121,381

TABLE C.—continued. Population.—England and Wales.—1841.—Males.

	Aged under 15 years.	Aged 15 years and under 20.	Aged 20 years and under 25.	Aged 25 years and under 30.	Aged 30 years and under 40.	Aged 40 years and under 50.	Aged 50 years and under 60.	Aged 60 years and above.	Total.
Oxford	29,853	8,092	7,453	5,699	9,604	7,609	5,326	6,540	80,176
Rutland	3,961	1,110	895	768	1,283	1,030	716	956	10,659
Salop	43,315	12,330	10,586	9,002	14,844	11,462	7,965	9,533	119,037
Somerset	77,906	21,562	18,398	15,093	24,971	20,341	13,978	16,666	208,918
Southampton	63,786	17,329	16,244	13,192	20,873	16,442	12,534	13,941	174,344
Stafford	98,920	26,193	24,633	21,616	33,266	23,298	14,908	14,752	257,586
Suffolk	58,982	15,555	12,962	10,598	17,961	14,505	10,166	12,103	153,832
Surry	98,513	25,057	25,399	22,971	39,077	29,010	18,094	17,086	275,207
Sussex	56,936	13,991	12,475	10,385	17,907	14,022	9,625	11,211	146,552
Warwick	71,682	19,198	18,191	16,010	25,729	19,220	12,035	12,417	194,782
Westmoreland	10,219	3,023	2,526	1,972	3,268	2,619	1,972	2,475	28,074
Wilts	48,088	13,282	11,435	8,842	14,777	12,234	8,272	10,524	127,454
Worcester	42,754	10,927	10,073	8,628	14,581	11,264	7,378	8,614	114,249
York	297,615	82,535	74,064	61,876	97,820	72,260	49,010	50,229	785,409
Anglesea	9,586	2,366	1,902	1,665	2,613	2,275	1,781	2,165	24,293
Brecon	9,604	2,844	2,775	2,362	3,722	2,572	1,897	2,217	28,023
Cardigan	12,811	3,333	2,639	2,212	3,589	2,762	2,200	2,637	32,183
Carmarthen	20,524	5,196	4,009	3,411	5,859	4,215	3,274	4,079	50,567
Carmarvon	14,931	3,939	3,197	3,135	4,880	3,474	2,616	2,935	39,437
Denbigh	4,691	3,812	3,476	3,166	5,307	4,119	3,131	3,582	44,373
Flint	12,746	3,599	3,077	2,507	4,090	3,084	2,130	2,223	33,456
Glamorgan	31,177	8,797	9,476	8,006	12,406	7,720	4,810	5,022	87,414
Merioneth	7,025	1,817	1,611	8,515	2,342	1,697	1,436	1,817	19,262
Montgomery	12,932	3,547	2,850	2,359	3,918	3,089	2,579	2,941	34,245
Pembroke	16,175	4,067	3,160	2,592	4,485	3,615	2,649	3,376	40,119
Radnor	4,731	1,305	1,217	914	1,359	1,188	937	1,153	12,804

TABLE D. *Population.—England and Wales.—1841.—Females.*

	Aged under 15 years.	Aged 15 years and under 20.	Aged 20 years and under 25.	Aged 25 years and under 30.	Aged 30 years and under 40.	Aged 40 years and under 50.	Aged 50 years and under 60.	Aged 60 years and above.	Total.
Bedford	20,213	5,763	5,738	4,344	6,804	5,293	3,461	4,118	55,734
Berks	28,708	7,773	7,686	6,407	9,957	7,698	5,494	6,868	80,591
Bucks	28,614	7,723	7,415	6,180	9,639	7,726	5,419	6,652	79,368
Cambridge	31,091	8,128	8,522	6,473	9,833	7,612	4,957	6,144	82,760
Cheshire	73,263	21,886	21,384	16,815	25,672	18,189	12,239	12,250	201,698
Cornwall	65,226	17,477	16,657	13,008	20,720	16,508	11,995	14,880	176,471
Cumberland	31,696	9,342	8,912	7,107	11,052	8,696	6,582	8,138	91,525
Derby	50,625	13,800	12,935	10,735	17,009	12,687	8,847	9,775	136,413
Devon	94,527	27,246	27,754	22,330	34,347	27,473	21,021	25,877	280,575
Dorset	32,579	8,701	8,792	6,922	11,165	8,752	6,282	8,239	91,432
Durham	60,304	16,184	16,395	13,334	21,073	14,553	10,270	11,955	164,068
Essex	64,564	16,512	16,474	13,105	20,492	16,536	11,179	13,317	172,179
Gloucester	75,917	22,460	23,463	18,588	29,043	22,445	15,048	18,710	225,674
Hereford	19,436	5,375	5,122	4,227	6,916	5,533	4,267	5,962	56,838
Hertford	28,854	7,661	7,811	6,254	9,948	7,671	5,210	6,029	79,448
Huntingdon	11,041	2,950	2,928	2,205	3,402	2,744	1,854	2,288	29,412
Kent	96,865	26,192	27,703	22,597	35,197	26,315	18,346	21,285	274,500
Lancaster	304,112	89,897	93,520	75,845	117,577	77,117	48,360	45,201	851,629
Leicester	39,656	11,009	10,730	8,652	13,716	10,689	7,228	8,532	110,212
Lincoln	66,177	17,848	17,649	13,924	21,539	16,831	11,716	14,797	180,481
Middlesex	243,998	78,046	98,080	84,472	132,187	90,821	54,890	54,009	836,503
Monmouth	23,347	6,126	6,806	5,449	8,324	5,575	3,709	4,344	63,680
Norfolk	74,956	21,011	20,900	16,089	25,364	20,812	14,266	20,109	213,507
Northampton	36,280	9,715	9,458	7,595	12,185	9,591	6,811	8,482	100,117
Northumberland	44,002	12,952	13,306	10,832	16,567	11,978	8,744	10,385	128,766
Nottingham	46,253	12,783	12,154	10,157	16,639	12,409	8,272	9,479	128,146

TABLE D.—continued. *Population.—England and Wales.—1841.—Females.*

	Aged under 15 years.	Aged 15 years and under 20.	Aged 20 years and under 25.	Aged 25 years and under 30.	Aged 30 years and under 40.	Aged 40 years and under 50.	Aged 50 years and under 60.	Aged 60 years and above.	Total.
Oxford	29,635	8,090	7,531	6,068	9,829	7,671	5,296	6,963	81,083
Rutland	3,885	938	895	778	1,261	1,045	692	1,047	10,541
Salop	43,011	11,613	11,167	9,190	14,497	11,255	8,122	10,711	119,566
Somerset	77,487	22,278	22,587	17,582	27,839	22,048	16,137	20,503	226,461
Southampton	62,711	17,536	18,213	14,562	22,392	17,419	12,586	14,382	179,801
Stafford	98,718	24,068	24,567	20,208	30,930	22,156	14,721	15,864	251,232
Suffolk	58,552	15,693	15,496	12,086	18,816	15,010	10,681	14,527	160,861
Surrey	98,768	27,616	32,363	27,581	44,380	31,700	19,810	22,436	303,654
Sussex	56,579	14,611	14,756	11,986	18,881	14,319	9,674	10,841	151,677
Warwick	72,544	20,387	21,488	17,616	26,855	19,712	12,615	14,464	205,681
Westmoreland	10,296	2,749	2,428	2,097	3,262	2,570	2,018	2,689	28,109
Wilts	47,500	12,694	12,165	9,225	15,220	12,660	8,984	11,953	130,401
Worcester	42,891	11,687	11,358	9,264	14,892	11,453	7,482	9,479	118,506
York	296,369	82,937	79,526	63,861	99,462	73,056	50,662	55,387	801,260
Anglesea	9,153	2,585	2,324	1,948	3,039	2,543	2,128	2,792	26,512
Brecon	9,664	2,788	2,671	2,202	3,267	2,405	1,897	2,596	27,490
Cardigan	12,623	3,697	3,358	2,858	4,370	3,308	2,828	3,500	36,542
Carmarthen	20,016	5,766	5,023	4,073	6,562	4,877	3,814	5,512	55,643
Carmarvon	14,775	4,129	3,805	3,143	4,988	3,908	2,973	3,729	41,450
Deubigh	15,901	4,561	3,942	3,202	5,168	4,116	3,216	4,311	44,417
Flint	12,405	3,162	2,932	2,401	3,913	3,163	2,254	2,836	33,066
Glamorgan	30,554	8,184	8,359	7,034	10,684	7,219	4,958	6,262	83,251
Merioneth	6,798	1,818	1,724	1,524	2,319	1,876	1,615	2,365	20,039
Montgomery	12,973	3,554	2,921	2,388	3,910	3,102	2,614	3,456	34,918
Pembroke	16,403	4,910	4,667	3,599	5,596	4,469	3,374	4,760	47,778
Radnor	4,712	1,314	1,112	854	1,323	1,090	910	1,211	12,516

TABLE E.

Population of England and Wales.—1841.—With the Proportionate Numbers at each Term of Life.—Males.

Ages.	Bedford.		Berks.		Bucks.		Cambridge.	
	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.
Under 15	20,684	39.677	29,361	36.887	29,242	38.362	31,194	38.354
15—20	5,286	10.139	7,853	9.866	7,790	10.219	8,203	10.086
20—25	4,584	8.793	7,181	9.026	6,449	8.460	7,887	9.697
25—30	3,713	7.122	5,886	7.395	5,430	7.123	6,116	7.520
30—40	6,270	12.027	9,934	12.480	8,912	11.691	9,839	12.098
40—50	4,819	9.224	7,694	9.666	7,207	9.455	7,786	9.573
50—60	3,065	5.879	5,313	6.713	5,018	6.583	4,910	6.037
60 & upwards	3,710	7.116	6,341	7.967	6,179	8.106	5,396	6.635
Total.....	52,131		79,596		76,227		81,331	
Ages unknown	59		635		255		280	
Grand Total	52,190		80,231		76,482		81,611	

Ages.	Cheshire.		Cornwall.		Cumberland.		Derby.	
	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.
Under 15	73,390	38.119	67,108	40.846	32,256	37.543	50,695	37.576
15—20	20,302	10.545	17,517	10.662	8,855	10.306	13,755	10.195
20—25	18,170	9.594	13,770	8.381	7,792	9.069	12,026	8.914
25—30	15,309	7.952	11,158	6.791	6,247	7.271	10,484	7.771
30—40	21,738	12.849	18,605	11.324	10,195	11.866	17,095	12.671
40—50	17,617	9.150	14,761	8.984	8,112	9.442	12,719	9.428
50—60	11,494	5.970	10,066	6.127	5,948	6.916	8,769	6.500
60 & upwards	11,206	5.821	11,310	6.884	6,513	7.581	9,680	7.175
Total ...	192,526		164,295		85,918		135,223	
Ages unknown	1,120		462		374		397	
Grand Total	193,646		164,757		86,292		135,620	

Ages.	Devon.		Dorset.		Durham.		Essex.	
	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.
Under 15	95,058	37.714	32,656	39.128	61,202	38.323	64,617	37.719
15—20	25,727	10.207	8,206	9.832	16,430	10.288	16,647	9.718
20—25	21,277	8.442	6,670	7.992	15,837	9.917	15,362	8.967
25—30	17,604	6.984	5,722	6.856	13,244	8.293	12,722	7.426
30—40	29,491	11.700	9,749	11.681	20,345	12.739	20,708	12.088
40—50	23,864	9.168	7,760	9.298	13,881	8.692	17,107	9.986
50—60	18,206	7.223	5,559	6.661	9,086	5.689	11,304	6.599
60 & upwards	20,822	8.261	7,137	8.552	9,677	6.059	12,843	7.497
Total ...	252,019		83,459		159,702		171,310	
Ages unknown	711		95		371		1,038	
Grand Total	252,760		83,554		160,073		172,348	

TABLE E.—*continued. Population of England and Wales.—1841.—Males.*

Ages.	Gloucester.		Hereford.		Hertford.		Huntingdon.	
	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.
Under 15	75,469	36·935	19,586	34·442	29,630	38·421	11,075	38·262
15—20	20,142	9·858	5,502	9·675	7,814	10·132	3,005	10·382
20—25	18,346	8·979	4,782	8·409	6,853	8·886	2,693	9·304
25—30	15,441	7·557	4,169	7·331	5,634	7·306	2,163	7·473
30—40	25,916	12·683	7,125	12·529	9,395	12·182	3,352	11·581
40—50	20,285	9·928	5,956	10·474	7,255	9·407	2,756	9·522
50—60	13,432	6·574	4,270	7·509	4,970	6·444	1,802	6·226
60 & upwards	15,299	7·487	5,476	9·630	5,569	7·221	2,099	7·252
Total.....	204,330		56,866		77,120		28,945	
Ages unknown	1,213		112		497		127	
Grand Total	205,543		56,978		77,617		29,072	

	Kent.		Lancaster.		Leicester.		Lincoln.	
Under 15	98,569	36·577	303,779	37·362	39,389	37·343	66,780	37·004
15—20	26,710	9·912	85,122	10·469	10,719	10·191	18,202	10·086
20—25	25,731	9·548	81,057	9·969	9,061	8·591	16,813	9·316
25—30	19,715	7·316	69,472	8·544	7,603	7·208	13,744	7·616
30—40	33,474	12·421	113,866	14·004	12,812	12·147	21,936	12·155
40—50	25,299	9·388	75,411	9·279	10,379	9·840	17,494	9·694
50—60	18,058	6·701	44,921	5·525	7,050	6·684	11,674	6·469
60 & upwards	21,928	8·137	39,419	4·848	8,434	7·996	13,823	7·660
Total.....	269,484		813,077		105,477		180,466	
Ages unknown	3,048		1,770		139		1,292	
Grand Total	272,532		814,847		105,616		181,758	

	Middlesex.		Monmouth.		Norfolk.		Northampton.	
Under 15	237,999	32·445	23,931	33·961	74,832	37·647	36,439	36·934
15—20	66,724	9·096	6,810	9·664	20,150	10·137	10,169	10·307
20—25	75,832	10·338	7,903	11·215	16,554	8·328	9,008	9·130
25—30	69,575	9·485	6,702	9·511	13,608	6·846	7,197	7·295
30—40	113,609	15·487	10,908	14·202	23,375	11·760	12,112	12·276
40—50	82,375	11·230	6,709	9·521	20,071	10·097	9,495	9·624
50—60	48,145	6·563	4,166	5·912	13,122	6·602	6,465	6·553
60 & upwards	39,286	5·356	4,238	6·014	17,060	8·583	7,777	7·883
Total.....	733,545		70,467		198,772		98,662	
Ages unknown	5,359		139		329		315	
Grand Total	738,904		70,606		199,101		98,977	

TABLE E.—*continued. Population of England and Wales.—1841.—Males.*

Ages.	Northumberland.		Nottingham.		Oxford.		Rutland.	
	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.
Under 15	44,474	36.795	45,795	37.728	29,853	37.234	3,961	37.161
15—20	12,234	10.122	11,811	9.731	8,092	10.093	1,110	10.414
20—25	11,668	9.653	10,216	8.417	7,453	9.296	895	8.397
25—30	9,746	8.063	8,789	7.241	5,699	7.108	708	6.612
30—40	15,458	12.789	15,554	12.814	9,604	11.979	1,283	12.036
40—50	11,144	9.220	11,957	9.851	7,609	9.499	1,030	9.663
50—60	7,803	6.456	8,112	6.683	5,326	6.643	716	6.717
60 & upwards	8,345	6.904	9,147	7.536	6,540	8.157	956	8.969
Total	120,872		121,381		80,176		10,659	
Ages unknown	396		350		260		62	
Grand Total	121,268		121,731		80,436		10,721	

	Salop.		Somerset.		Southampton.		Stafford.	
	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.
Under 15	43,315	36.388	77,906	37.290	63,786	36.586	98,920	38.403
15—20	12,330	10.599	21,562	10.321	17,329	9.940	26,193	10.169
20—25	10,586	8.893	18,398	8.806	16,244	9.317	24,633	9.563
25—30	9,002	7.562	15,093	7.224	13,192	7.567	21,616	8.392
30—40	14,844	12.470	24,974	11.954	20,873	11.972	33,266	12.915
40—50	11,462	9.629	20,311	9.736	16,442	9.431	23,298	9.045
50—60	7,965	6.691	13,978	6.691	12,534	7.189	14,908	5.788
60 & upwards	9,533	8.008	16,666	7.977	13,944	7.998	14,752	5.727
Total	119,037		208,918		174,344		257,586	
Ages unknown	318		465		679		1,278	
Grand Total	119,355		209,383		175,023		258,864	

	Suffolk.		Surrey.		Sussex.		Warwick.	
	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.
Under 15	58,982	38.342	98,513	35.796	56,936	38.850	71,682	36.801
15—20	15,555	10.112	25,057	9.105	13,991	9.547	19,498	9.856
20—25	12,962	8.426	25,399	9.229	12,475	8.512	18,491	9.493
25—30	10,598	6.874	22,971	8.347	10,385	7.086	16,010	8.220
30—40	17,961	11.703	39,077	14.199	17,907	12.191	25,729	13.209
40—50	14,505	9.429	29,010	10.541	14,022	9.568	19,220	9.867
50—60	10,166	6.609	18,094	6.575	9,625	6.568	12,035	6.178
60 & upwards	13,103	8.518	17,086	6.208	11,211	7.650	12,417	6.375
Total	153,832		275,207		146,552		194,782	
Ages unknown	263		2,996		1,052		897	
Grand Total	154,095		278,203		147,604		195,679	

TABLE E.—*continued. Population of England and Wales.—1841.—Males.*

Ages.	Westmoreland.		Wilts.		Worcester.		York.	
	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.
Under 15	10,219	36.400	48,088	37.730	42,754	37.422	297,615	37.893
15—20	3,023	10.768	13,282	10.421	10,927	9.564	82,535	10.509
20—25	2,526	8.998	11,435	8.972	10,073	8.817	74,064	9.430
25—30	1,972	7.024	8,842	6.937	8,628	7.552	61,876	7.878
30—40	3,268	11.641	14,777	11.594	14,581	12.762	97,820	12.456
40—50	2,619	9.329	12,234	9.599	11,264	9.859	72,260	9.200
50—60	1,972	7.024	8,272	6.490	7,378	6.458	49,010	6.240
60 & upwards	2,475	8.816	10,524	8.257	8,644	7.566	50,229	6.395
Total	28,074		127,454		114,249		785,409	
Ages unknown	139		786		415		3,384	
Grand Total	28,213		128,240		114,664		788,793	

	Anglesea.		Brecon.		Cardigan.		Carmarthen.	
Under 15	9,586	39.460	9,604	34.272	12,811	39.807	20,524	40.588
15—20	2,366	9.739	2,844	10.149	3,333	10.356	5,196	10.275
20—25	1,902	7.829	2,775	9.903	2,639	8.200	4,009	7.928
25—30	1,605	6.607	2,362	8.429	2,212	6.873	3,411	6.746
30—40	2,613	10.756	3,722	13.282	3,589	11.152	5,859	11.587
40—50	2,275	9.365	2,572	9.178	2,762	8.582	4,215	8.336
50—60	1,781	7.331	1,897	6.769	2,200	6.836	3,274	6.475
60 & upwards	2,165	8.912	2,247	8.018	2,637	8.194	4,079	8.067
Total	24,293		28,023		32,183		50,567	
Ages unknown	81		51		32		109	
Grand Total	24,374		28,074		32,215		50,676	

	Carnarvon.		Denbigh.		Flint.		Glamorgan.	
Under 15	14,931	37.860	16,535	37.264	12,746	38.098	31,177	35.666
15—20	3,939	9.988	4,691	10.572	3,599	10.757	8,797	10.064
20—25	3,497	8.867	3,812	8.658	3,077	9.197	9,476	10.840
25—30	3,135	7.949	3,166	7.135	2,507	7.493	8,006	9.159
30—40	4,880	12.374	5,307	11.960	4,090	12.225	12,406	14.192
40—50	3,474	8.809	4,119	9.283	3,084	9.218	7,720	8.832
50—60	2,646	6.709	3,131	7.056	2,130	6.367	4,810	5.503
60 & upwards	2,935	7.442	3,582	8.073	2,223	6.645	5,022	5.745
Total	39,437		44,373		33,456		87,411	
Ages unknown	188		55		352		455	
Grand Total ..	39,625		44,428		33,808		87,869	

TABLE E.—continued. *Population of England and Wales.—1841.—Males.*

Ages.	Merioneth.		Montgomery.		Pembroke.		Radnor.	
	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.	Popula- tion.	Per centage to the total living.
Under 15	7,027	36.481	12,932	37.763	16,175	40.317	4,731	36.949
15—20	1,817	9.433	3,547	10.358	4,067	10.137	1,305	10.192
20—25	1,611	8.364	2,850	8.322	3,160	7.877	1,217	9.505
25—30	1,515	7.865	2,359	6.889	2,592	6.461	914	7.138
30—40	2,342	12.159	3,948	11.529	4,485	11.179	1,359	10.614
40—50	1,697	8.810	3,089	9.020	3,615	9.011	1,188	9.278
50—60	1,136	7.455	2,579	7.531	2,649	6.603	937	7.318
60 & upwards	1,817	9.433	2,941	8.588	3,376	8.415	1,153	9.005
Total	19,262		34,245		40,119		12,804	
Ages unknown	17		38		131		22	
Grand Total....	19,279		34,283		40,250		12,826	

Males. England and Wales.		Females. England and Wales.	
Population.	Per centage to the total living.	Population.	Per centage to the total living.
8,815,392	36.693	8,774,876	34.913
2,116,939	10.064	2,181,932	9.887
2,344,349	9.758	2,578,901	10.261
1,811,996	7.667	2,095,750	8.338
3,121,879	12.994	3,270,574	13.013
2,319,422	9.654	2,407,733	9.580
1,527,775	6.359	1,633,585	6.500
1,636,529	6.812	1,886,781	7.854
24,024,281		25,133,135	

TABLE F.

*Criminal Offenders in each County of England and Wales during 1842,
1843, and 1844.—Males.*

	Aged under 15 years.	Aged 15 years and under 20.	Aged 20 years and under 25.	Aged 25 years and under 30.	Aged 30 years and under 40.	Aged 40 years and under 50.	Aged 50 years and under 60.	Aged 60 years and upwards.	Ages not known.	Total.
Bedford.....1842	6	42	64	32	29	13	10	6	1	203
1843	8	31	37	35	33	27	5	2	2	180
1844	13	42	39	19	31	16	5	3	....	168
Total	27	115	140	86	93	56	20	11	3	551
Average	9	38	47	29	31	19	7	4	....	184
Berks .....1842	12	60	59	31	55	36	16	5	4	278
1843	17	56	71	37	47	19	5	5	28	285
1844	8	57	66	35	37	21	15	4	....	243
Total	37	173	196	103	139	76	36	14	32	806
Average	12	58	65	34	46	19	12	5	....	269
Bucks .....1842	4	51	81	45	39	17	9	5	3	254
1843	11	61	76	39	56	26	4	7	2	282
1844	14	68	49	43	49	17	14	4	5	263
Total	29	180	206	127	144	60	27	16	10	799
Average	10	60	69	42	48	20	9	5	....	266
Cambridge..1842	9	47	64	30	35	18	8	1	1	213
1843	12	48	59	29	43	16	11	2	4	224
1844	11	47	75	53	29	25	11	1	3	255
Total	32	142	198	112	107	59	30	4	8	692
Average	11	47	66	37	36	20	10	1	....	231
Chester.....1842	50	196	220	134	169	76	48	18	4	915
1843	61	158	177	133	163	79	41	25	11	848
1844	73	127	145	100	84	62	21	16	2	630
Total	184	481	542	367	416	217	110	59	17	2,393
Average	61	160	181	122	139	72	37	20	....	798
Cornwall ....1842	14	46	51	35	32	16	7	6	8	215
1843	18	48	54	33	41	17	8	7	....	226
1844	16	49	45	34	32	24	9	2	2	213
Total	48	143	150	102	105	57	24	15	10	654
Average	16	48	50	34	35	19	8	5	....	218
Cumberland 1842	2	16	12	10	16	10	4	5	1	76
1843	4	11	12	12	12	8	9	3	....	71
1844	6	9	17	21	20	14	4	4	3	98
Total	12	36	41	43	48	32	17	12	4	245
Average	4	12	14	14	16	11	6	4	....	82

TABLE F. <i>Continued.</i>		Aged under 15 years.	Aged 15 years and under 20.	Aged 20 years and under 25.	Aged 25 years and under 30.	Aged 30 years and under 40.	Aged 40 years and under 50.	Aged 50 years and under 60.	Aged 60 years and upwards.	Ages not known.	Total.
Derby	1842	10	32	83	45	57	37	15	8	9	296
	1843	6	46	67	61	65	23	6	7	7	288
	1844	7	42	59	45	49	19	14	7	4	246
	Total	23	120	209	151	171	79	35	22	20	830
Average		8	40	70	50	57	26	18	7	....	277
Devon	1842	20	110	126	88	89	49	22	13	5	522
	1843	21	125	136	98	105	45	25	6	2	563
	1844	35	96	143	101	91	61	23	13	1	564
	Total	76	331	405	287	285	155	70	32	8	1,649
Average		19	110	135	96	95	52	17	11	....	550
Dorset	1842	7	44	47	30	38	11	9	13	8	207
	1843	6	43	48	30	43	12	8	10	10	210
	1844	8	31	41	17	26	18	5	5	11	162
	Total	21	118	136	77	107	41	22	28	29	579
Average		7	39	45	26	36	14	7	9	....	193
Durham	1842	16	38	45	44	33	22	4	4	3	209
	1843	7	52	59	42	47	18	4	4	9	242
	1844	13	61	86	55	46	30	13	5	2	311
	Total	36	151	190	141	126	70	21	13	14	762
Average		12	50	63	47	42	23	7	4	....	254
Essex	1842	24	155	189	99	102	56	27	13	8	673
	1843	33	147	151	88	106	48	17	15	6	611
	1844	34	133	114	69	88	39	16	6	8	507
	Total	91	435	454	256	296	143	60	34	22	1,791
Average		30	145	151	85	99	48	20	11	....	597
Gloucester....	1842	98	267	226	131	150	71	42	14	32	1,031
	1843	104	253	208	122	141	70	30	19	15	962
	1844	65	245	206	105	118	65	34	15	20	873
	Total	267	765	640	358	409	206	106	48	67	2,866
Average		89	255	213	119	136	69	35	16	....	955
Hereford	1842	8	24	50	57	33	19	13	6	....	210
	1843	7	30	53	38	35	17	6	7	....	193
	1844	4	35	56	35	37	12	5	5	3	192
	Total	19	89	159	130	105	48	24	18	3	595
Average		6	30	53	43	35	16	8	6	....	198
Hertford	1842	16	58	76	44	64	29	9	4	4	304
	1843	8	40	75	41	34	20	12	7	4	241
	1844	5	55	66	32	53	20	4	3	6	244
	Total	29	153	217	117	151	69	25	14	14	789
Average		10	51	72	39	50	23	8	5	....	263

TABLE F.

Continued.

	Aged under 15 years.	Aged 15 years and under 20.	Aged 20 years and under 25.	Aged 25 years and under 30.	Aged 30 years and under 40.	Aged 40 years and under 50.	Aged 50 years and under 60.	Aged 60 years and upwards.	Ages not known.	Total.
Huntingdon 1842	2	13	17	11	11	3	....	1	2	60
1843	4	10	12	12	12	3	2	2	1	58
1844	1	14	20	13	8	6	2	....	....	64
Total	7	37	49	36	31	12	4	3	3	182
Average	2	12	16	12	10	4	1	1	....	61
Kent .....1842	41	209	234	138	163	99	36	23	29	972
1843	34	198	212	117	137	67	36	18	11	830
1844	31	169	214	137	105	54	17	17	11	755
Total	106	576	660	392	405	220	89	58	51	2,557
Average	35	192	220	131	135	73	30	19	....	852
Lancaster ....1842	208	759	861	589	652	280	91	42	68	3,550
1843	155	613	658	446	494	272	95	27	70	2,830
1844	191	540	497	310	359	175	61	33	38	2,204
Total	554	1912	2016	1345	1505	727	247	102	176	8,584
Average	185	637	672	448	502	242	82	34	....	2,861
Leicester ....1842	29	90	108	66	72	32	11	14	1	423
1843	21	115	114	75	82	20	10	14	3	454
1844	26	111	98	57	70	37	12	7	7	425
Total	76	316	320	198	224	89	33	35	11	1,302
Average	25	105	107	66	75	30	11	12	....	434
Lincoln .....1842	5	66	107	89	73	32	15	7	13	407
1843	11	90	143	68	91	42	16	6	10	477
1844	16	70	138	86	80	38	10	2	10	450
Total	32	226	388	243	244	112	41	15	33	1,334
Average	11	75	129	81	81	37	14	5	....	445
Middlesex ....1842	240	878	710	387	441	231	81	51	86	3,105
1843	307	991	725	381	418	222	91	32	113	3,280
1844	238	869	694	373	406	228	129	42	100	3,079
Total	785	2738	2129	1141	1265	681	301	125	299	9,464
Average	262	913	730	380	422	227	100	42	....	3,155
Monmouth 1842	7	34	44	38	51	22	12	2	3	213
1843	7	31	57	41	43	14	5	4	6	208
1844	4	38	51	31	39	13	6	9	10	201
Total	18	103	152	110	133	49	23	15	19	622
Average	6	34	51	37	44	16	8	5	....	207
Norfolk .....1842	67	180	166	84	91	47	29	13	4	681
1843	31	179	162	93	112	44	20	15	9	665
1844	63	168	164	91	72	45	26	19	13	661
Total	161	527	492	268	275	136	75	47	26	2,007
Average	54	176	164	89	92	45	25	16	....	669

TABLE F.

Continued.

	Aged under 15 years.	Aged 15 years and under 20.	Aged 20 years and under 25.	Aged 25 years and under 30.	Aged 30 years and under 40.	Aged 40 years and under 50.	Aged 50 years and under 60.	Aged 60 years and upwards.	Ages not known.	Total.
Northamp. 1842	19	56	79	35	55	25	14	6	19	308
1843	6	38	81	47	34	19	8	7	5	245
1844	9	43	65	52	39	29	10	6	7	260
Total	34	137	225	134	128	73	32	19	31	813
Average	11	46	75	45	43	24	11	6	....	271
Northumb. 1842	18	50	46	22	34	14	7	....	2	193
1843	28	55	45	24	27	10	8	4	23	224
1844	19	42	57	31	30	14	4	3	17	217
Total	65	147	148	77	91	38	19	7	42	634
Average	22	49	49	26	30	13	6	2	....	211
Nottingham 1842	10	75	87	52	51	27	12	3	8	325
1843	18	64	105	32	53	23	8	6	1	310
1844	28	67	71	38	47	32	11	1	2	297
Total	56	206	263	122	151	82	31	10	11	932
Average	19	69	88	41	50	27	10	3	....	311
Oxford .....1842	15	56	66	43	58	26	13	5	4	286
1843	15	35	77	53	50	21	7	9	9	276
1844	15	54	68	40	40	20	6	6	10	259
Total	45	145	211	136	148	67	26	20	23	821
Average	15	48	70	45	49	22	9	7	....	274
Rutland ....1842	1	2	17	9	7	4	4	....	....	44
1843	1	3	12	5	5	4	....	....	2	32
1844	....	3	3	2	9	2	....	1	....	20
Total	2	8	32	16	21	10	4	1	2	96
Average	1	3	11	5	7	3	1	....	....	32
Salop.....1842	18	74	98	56	78	35	23	10	3	395
1843	20	87	93	80	85	45	17	13	5	445
1844	19	61	87	54	66	39	23	15	1	365
Total	57	222	278	190	229	119	63	38	9	1,205
Average	19	74	93	63	76	40	21	13	....	402
Somerset ....1842	52	219	237	141	143	61	32	14	80	982
1843	51	204	214	117	106	54	24	26	35	831
1844	47	238	221	122	98	51	33	20	49	879
Total	150	661	672	383	347	166	89	60	164	2,692
Average	50	220	224	128	116	55	30	20	....	897
Southamp. 1842	27	109	149	83	102	45	38	16	6	575
1843	24	115	150	92	87	48	19	10	7	552
1844	28	87	122	74	45	33	18	10	7	424
Total	79	311	421	249	234	126	75	36	20	1,551
Average	26	104	140	83	78	42	25	12	....	517

TABLE F.

Continued.

	Aged under 15 years.	Aged 15 years and under 20.	Aged 20 years and under 25.	Aged 25 years and under 30.	Aged 30 years and under 40.	Aged 40 years and under 50.	Aged 50 years and under 60.	Aged 60 years and upwards.	Ages not known.	Total.
Stafford.....1842	58	238	355	202	252	100	43	26	21	1,295
1843	45	166	241	189	151	71	40	17	55	978
1844	41	125	169	113	136	60	32	12	19	710
Total	147	529	768	504	539	231	115	55	95	2,983
Average	49	176	256	168	180	77	38	18	....	994
Suffolk .....1842	22	85	135	55	76	36	18	11	9	447
1843	39	111	142	79	75	32	18	12	9	517
1844	18	153	145	78	74	33	15	12	10	538
Total	79	349	422	212	225	101	51	35	28	1,502
Average	26	116	141	71	75	34	17	12	....	501
Surrey .....1842	49	194	200	124	106	58	31	10	9	781
1843	34	167	182	104	97	54	30	12	10	690
1844	49	225	194	103	87	33	28	11	14	747
Total	132	586	576	331	290	145	89	36	33	2,218
Average	44	195	192	110	97	48	30	12	....	739
Sussex .....1842	19	109	126	65	79	36	21	14	....	469
1843	32	97	88	53	71	43	14	10	2	410
1844	22	70	77	45	66	32	19	9	....	310
Total	73	276	291	163	216	111	54	33	2	1,219
Average	24	92	97	54	72	37	18	11	....	406
Warwick ....1842	60	230	206	105	141	72	18	13	1	846
1843	75	256	211	109	129	51	19	11	7	868
1844	54	191	183	120	122	59	26	12	8	775
Total	189	677	600	334	392	182	63	36	16	2,189
Average	63	226	200	111	131	61	21	12	....	830
Westmor. 1842	....	3	7	10	5	2	1	1	1	30
1843	2	5	13	7	3	3	....	1	....	34
1844	1	4	5	2	5	....	1	....	....	18
Total	3	12	25	19	13	5	2	2	1	82
Average	1	4	8	6	4	2	1	1	....	27
Wilts.....1842	20	123	122	69	81	35	22	10	6	491
1843	14	92	105	56	75	52	15	8	2	399
1844	25	81	97	44	59	32	19	7	6	373
Total	59	299	324	169	218	119	56	25	14	1,263
Average	20	100	108	56	73	40	19	8	....	421
Worcester....1842	23	117	110	86	85	33	24	7	22	507
1843	22	117	159	95	91	48	17	3	13	575
1844	30	115	131	70	82	45	26	9	11	516
Total	85	349	403	251	258	126	61	19	46	1,598
Average	28	116	134	84	86	42	20	6	....	533

TABLE F.
Continued.

	Aged under 15 years.	Aged 15 years and under 20.	Aged 20 years and under 25.	Aged 25 years and under 30.	Aged 30 years and under 40.	Aged 40 years and under 50.	Aged 50 years and under 60.	Aged 60 years and upwards.	Ages not known.	Total.
York .....1842	105	399	580	427	398	179	80	26	24	2,218
1843	78	415	513	337	328	124	53	31	20	1,929
1844	76	298	332	246	226	100	46	28	16	1,368
Total	259	1112	1455	1010	952	403	179	85	60	5,515
Average	86	371	485	337	317	134	60	28	....	1,838
Anglesea ....1842	....	2	3	2	3	4	2	1	....	17
1843	....	2	4	1	4	....	1	....	4	16
1844	....	3	....	1	1	....	....	....	1	6
Total .....	....	7	7	4	8	4	3	1	5	39
Average ....	....	2	2	1	3	1	1	....	....	13
Brecon .....1842	....	4	14	12	9	10	2	2	....	53
1843	2	7	12	9	12	11	....	1	2	56
1844	....	4	12	6	12	6	3	....	3	46
Total	2	15	38	27	33	27	5	3	5	155
Average	1	5	13	9	11	9	2	1	....	52
Cardigan ....1842	1	2	4	3	2	1	....	....	1	14
1843	2	....	3	5	5	1	....	3	3	22
1844	....	2	10	9	1	2	....	....	1	25
Total	3	4	17	17	8	4	....	3	5	61
Average	1	1	6	6	3	1	....	1	....	20
Carmarthen 1842	2	5	7	3	10	5	2	....	8	42
1843	3	13	24	10	17	15	3	....	76	161
1844	3	6	24	15	18	7	5	2	12	92
Total	8	24	55	28	45	27	10	2	96	295
Average	3	8	18	9	15	9	3	1	....	98
Carnarvon 1842	....	4	7	6	5	2	1	1	....	26
1843	2	....	8	2	2	3	....	1	1	19
1844	1	4	9	2	3	....	1	1	4	25
Total	3	8	24	10	10	5	2	3	5	70
Average	1	3	8	3	3	2	1	1	....	23
Denbigh ....1842	3	8	17	12	10	5	....	1	9	65
1843	2	9	23	8	9	9	4	2	7	73
1844	9	11	13	13	9	14	1	2	6	78
Total	14	28	53	33	28	28	5	5	22	216
Average	5	9	18	11	9	9	2	2	....	72
Flint .....1842	1	7	12	4	12	4	1	2	6	49
1843	....	7	8	4	15	7	1	1	3	46
1844	1	5	8	7	11	2	1	1	3	42
Total	2	19	28	15	41	13	3	4	12	137
Average	1	6	9	5	14	4	1	1	....	46

TABLE F.

Continued.

		Aged under 15 years.	Aged 15 years and under 20.	Aged 20 years and under 25.	Aged 25 years and under 30.	Aged 30 years and under 40.	Aged 40 years and under 50.	Aged 50 years and under 60.	Aged 60 years and upwards.	Ages not known.	Total.
Glamorgan	1842	12	29	31	28	25	12	4	3	9	153
	1843	5	11	25	32	26	12	6	2	12	131
	1844	6	32	40	25	28	15	7	2	13	168
	Total	23	72	96	85	79	39	17	7	34	452
	Average	8	24	32	28	26	13	6	2	....	151
Merioneth....	1842	2	1	4	....	1	....	2	....	1	11
	1843	....	1	2	4	3	5	1	1	....	17
	1844	1	1	1	2	1	....	1	....	....	7
	Total	3	3	7	6	5	5	4	1	1	35
	Average	1	1	2	2	2	2	1	....	....	12
Montgomery	1842	....	8	20	3	7	8	5	3	1	55
	1843	2	16	18	10	13	5	7	2	2	75
	1844	1	16	15	15	14	9	5	5	....	80
	Total	3	40	53	28	34	22	17	10	3	210
	Average	1	13	18	9	11	7	6	3	....	70
Pembroke	1842	....	5	10	3	3	3	....	....	2	26
	1843	....	6	14	10	7	2	4	....	27	70
	1844	2	6	9	6	7	4	5	....	2	41
	Total	2	17	33	19	17	9	9	....	31	137
	Average	1	6	11	6	6	3	3	....	....	46
Radnor	1842	....	3	3	3	6	4	1	....	....	20
	1843	....	3	5	2	6	1	2	2	1	22
	1844	1	5	4	3	5	4	....	1	2	25
	Total	1	11	12	8	17	9	3	3	3	67
	Average ....	....	4	4	3	6	3	1	1	....	22

TABLE G.
Amount of Crime in the following places, assuming the Ratio to be the same as that for England and Wales, during 1842, 1843, and 1844.—Males.

Ages.	England and Wales. 1841.	England and Wales. 1842.	Metrop- olis. 1841.	Glasgow. 1841.	United States, America. Males and Females.	Ireland.		Manchester, Birmingham, Leeds, and Sheffield.	Devon, Essex, Suffolk, Norfolk, and Hereford.	Beltham Green.	St. George's, Hanover Square.	Middlesex.	Cornwall.
						4 Counties where the proportion of murders is lowest.	4 Counties where the proportion of murders is highest.						
Under 15	1,422	1,171	140	23	2	92	181	56	155	7	3	118	33
15—20	5,343	3,956	541	94	7	317	683	214	572	24	18	456	120
20—25	5,565	3,582	691	119	8	296	576	240	546	23	23	584	106
25—30	3,655	2,352	493	77	5	232	478	168	352	17	22	417	67
30—40	3,790	2,556	513	72	4	193	377	173	374	19	21	431	71
40—50	1,874	1,371	243	30	2	103	167	78	201	9	9	206	37
50—60	841	658	97	10	....	48	89	29	97	4	3	82	17
60 and upwards	434	349	39	4	....	20	26	11	56	2	1	32	9
Total	22,924	15,995	2,757	429	28	1,331	2,577	969	2,356	105	106	2,326	460
Population	7,771,694	5,845,676	876,956	130,478	10,000	459,728	870,958	310,869	832,829	35,552	29,651	733,545	164,295
Proportion, 1 in	339	365	314	304	357	345	338	321	353	338	280	315	357

TABLE G.—continued.

Ages.	Bedford.	Berks.	Bucks.	Cambridge	Cheshire.	Cornwall.	Cumber- land.	Derby.	Devon.	Dorset.	Durham.	Essex.	Gloucester.
Under 15	10	15	14	15	36	33	16	25	47	16	30	32	37
15-20	36	54	53	56	139	120	61	94	176	56	112	114	138
20-25	35	55	50	61	112	106	60	93	164	51	122	118	141
25-30	22	35	33	37	92	67	37	63	105	34	79	76	93
30-40	24	38	34	37	94	71	39	65	112	37	77	79	98
40-50	12	19	18	20	41	37	20	32	60	19	35	43	51
50-60	5	9	9	8	19	17	10	15	31	9	15	19	23
60 and upwards	3	5	5	4	9	9	5	8	17	6	8	10	12
Total	147	230	216	238	575	460	248	395	712	228	478	491	593
Population	52,131	79,596	76,227	81,331	192,526	161,295	85,918	135,223	252,049	83,459	159,702	171,310	204,330
Proportion, 1 in	355	346	353	342	334	357	346	342	354	366	334	348	344
Ages.	Hereford.	Hertford.	Hunting- don.	Kent.	Lancaster.	Leicester.	Lincoln.	Middlesex.	Mon- mouth.	Norfolk.	Northamp- ton.	Northam- berland.	Notts.
Under 15	10	15	5	49	150	19	33	118	12	37	18	22	23
15-20	38	54	21	183	582	74	125	456	47	138	70	84	81
20-25	37	53	21	198	624	70	129	584	61	128	69	90	79
25-30	25	34	13	118	416	46	82	417	40	81	43	58	53
30-40	27	36	13	127	432	49	83	431	38	89	46	59	59
40-50	15	18	7	63	189	26	44	206	17	50	24	28	30
50-60	7	8	3	31	76	12	20	82	7	22	11	13	14
60 and upwards	4	5	2	18	32	7	11	32	3	14	6	7	7
Total	163	223	85	787	2,501	303	527	2,326	225	559	287	361	346
Population	56,866	77,120	28,945	269,484	813,077	105,477	180,466	733,545	70,467	198,772	98,662	120,872	121,381
Proportion, 1 in	349	316	341	342	325	348	342	315	313	356	344	335	351

TABLE G.—continued.

Ages.	Oxford.	Rutland.	Salop.	Somerset.	Southamp- ton.	Stafford.	Suffolk.	Surrey.	Sussex.	Warwick.	Westmore- land.	Wilts.	Worcester.
Under 15	15	2	21	39	32	49	29	49	28	35	5	24	21
15—20	55	8	84	148	119	179	106	171	96	131	21	91	75
20—25	57	7	82	178	125	190	100	196	96	142	20	88	78
25—30	34	4	54	90	79	129	63	138	62	96	12	53	52
30—40	36	5	56	95	79	126	68	148	68	98	12	56	55
40—50	19	3	29	51	41	58	36	73	35	48	7	31	28
50—60	9	1	14	24	21	25	17	31	16	20	3	14	12
60 and upwards	5	0	8	14	11	12	11	14	9	10	2	9	7
Total	230	30	348	639	507	768	430	820	410	580	82	366	328
Population	80,176	10,659	119,037	208,918	174,314	257,586	153,832	275,207	146,552	194,782	28,074	127,454	111,249
Proportion, 1 in	348	355	342	327	344	335	358	336	357	335	342	348	348

Ages.	York.	Anglesea.	Brecon.	Cardigan.	Carmar- then.	Carmarvon.	Denbigh.	Flint.	Glamor- gan.	Merioneth.	Mont- gomery.	Pembroke.	Radnor.
Under 15	147	5	5	6	10	7	8	6	15	3	6	8	2
15—20	565	16	19	23	36	27	32	25	60	12	24	28	9
20—25	570	15	21	20	31	27	30	24	73	12	22	24	9
25—30	371	0	14	13	20	19	19	15	48	9	14	16	5
30—40	371	10	14	14	22	19	20	16	47	9	15	17	5
40—50	181	6	6	7	11	9	10	8	19	4	8	9	3
50—60	83	3	3	4	6	4	5	4	8	2	4	4	2
60 and upwards	41	2	2	2	3	2	3	2	4	1	2	3	1
Total	2,329	57	84	89	139	114	127	100	274	52	95	109	36
Population	785,409	24,293	28,023	32,183	50,567	39,437	41,373	33,456	87,414	19,262	31,245	40,119	12,804
Proportion, 1 in	357	363	334	362	363	346	349	335	319	370	360	368	355

TABLE II. *Showing the actual amount of Crime in each County, according to the average of the years 1842, 1843, and 1844, and also the calculated amount supposing the ratio to be the same as that for the whole of England and Wales during the same years.—Males.*

Ages.	Bedford.		Berks.		Bucks.		Cambridge.		Cheshire.		Cornwall.		Cumberland.	
	Proportion.		Proportion.		Proportion.		Proportion.		Proportion.		Proportion.		Proportion.	
	Calculated.	Actual.	Calculated.	Actual.	Calculated.	Actual.	Calculated.	Actual.	Calculated.	Actual.	Calculated.	Actual.	Calculated.	Actual.
Under 15	10	9	15	12	14	10	15	11	36	61	33	16	16	4
15—20	36	38	54	58	53	60	56	47	139	160	120	48	61	12
20—25	35	47	55	65	50	69	61	66	112	181	106	50	60	14
25—30	22	29	35	34	33	42	37	37	92	122	67	34	37	14
30—40	21	31	38	46	34	48	37	36	91	139	71	35	39	16
40—50	12	19	19	19	18	20	20	20	72	44	37	19	20	11
50—60	5	7	9	12	9	9	8	10	19	37	17	8	10	6
60 and upwards	3	4	5	5	5	5	4	1	9	20	9	5	5	4
Total	147	184	230	251	216	263	238	228	575	792	460	215	248	81
Population	32,131	...	79,596	...	76,227	...	81,331	...	192,526	...	164,295	...	85,918	...
Proportion, 1 in	355	283	346	317	353	290	342	357	334	243	357	761	346	1,061

	Derby.		Devon.		Dorset.		Durham.		Essex.		Gloucester.		Hereford.	
	Proportion.		Proportion.		Proportion.		Proportion.		Proportion.		Proportion.		Proportion.	
Under 15	25	8	47	19	16	7	30	12	32	30	37	89	10	6
15—20	94	40	176	110	56	39	112	50	114	145	138	255	38	30
20—25	93	70	161	135	51	45	122	63	118	151	141	213	37	53
25—30	63	50	105	96	34	26	79	47	76	85	93	119	25	43
30—40	65	57	112	95	37	36	77	42	79	99	98	136	27	35
40—50	32	26	60	52	19	14	35	23	43	48	51	69	15	16
50—60	15	18	31	17	9	7	15	7	19	20	23	35	7	8
60 and upwards	8	7	17	11	6	9	8	4	10	11	12	16	4	6
Total	395	276	712	535	228	183	478	248	491	589	593	932	163	197
Population	135,223	...	252,049	...	83,459	...	159,702	...	171,310	...	204,330	...	56,866	...
Proportion, 1 in	342	489	354	471	366	456	334	644	348	291	314	219	349	290

TABLE II.—continued.

Ages.	Hertford.		Hunts.		Kent.		Lancaster.		Leicester.		Lincoln.		Middlesex.	
	Proportion.	Calculated.	Actual.	Proportion.	Calculated.	Actual.	Proportion.	Calculated.	Actual.	Proportion.	Calculated.	Actual.	Proportion.	Calculated.
Under 15.....	15	10	5	2	49	35	150	185	19	25	33	11	118	262
15—20.....	54	51	21	12	183	192	582	637	74	105	125	75	456	913
20—25.....	53	72	21	16	198	220	624	672	70	107	129	129	581	730
25—30.....	34	39	13	12	118	131	416	448	46	66	82	81	417	380
30—40.....	36	50	13	10	127	135	432	502	49	75	83	81	422	422
40—50.....	18	23	7	4	63	73	189	242	26	30	44	37	206	227
50—60.....	8	8	3	1	31	30	76	82	12	11	20	14	82	100
60 and upwards	5	5	2	1	18	19	32	34	7	12	11	5	32	42
Total	223	258	85	58	787	855	2,501	2,802	303	431	527	433	2,326	3,076
Population	77,120	...	28,945	...	269,484	...	813,077	...	105,477	...	180,466	...	733,545	...
Proportion, 1 in	346	299	345	499	342	323	325	290	348	245	342	417	315	238
	Monmouth.		Norfolk.		Northampton.		Northumberland.		Notts.		Oxford.		Rutland.	
	Proportion.	Calculated.	Actual.	Proportion.	Calculated.	Actual.	Proportion.	Calculated.	Actual.	Proportion.	Calculated.	Actual.	Proportion.	Calculated.
Under 15.....	12	6	37	54	18	11	22	22	23	19	15	15	2	1
15—20.....	47	34	138	176	70	46	84	49	81	69	55	48	8	3
20—25.....	61	51	128	164	69	75	90	49	79	88	57	70	7	11
25—30.....	40	37	81	89	43	45	58	26	53	41	34	45	4	5
30—40.....	38	44	89	92	46	43	59	30	59	50	36	49	5	7
40—50.....	17	16	50	45	24	24	28	13	30	27	19	22	3	3
50—60.....	7	8	22	25	11	11	13	6	14	10	9	9	1	1
60 and upwards	3	5	14	16	6	6	7	2	7	3	5	7	...	...
Total	225	201	559	661	287	261	361	197	346	307	230	265	30	31
Population	70,467	...	198,772	...	98,662	...	120,872	...	121,381	...	80,176	...	10,659	...
Proportion, 1 in	313	351	356	301	344	378	335	614	351	395	348	302	355	344

TABLE II.—continued.

Ages.	Salop.		Somerset.		Southampton.		Stafford.		Suffolk.		Surrey.	
	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.
Under 15	21	19	39	50	32	26	49	49	29	26	49	44
15-20	84	74	148	220	119	104	179	176	106	116	171	195
20-25	82	93	178	224	125	140	190	256	100	141	196	192
25-30	54	63	90	128	79	83	129	168	63	71	138	110
30-40	56	76	95	116	79	78	126	180	68	75	148	97
40-50	29	40	51	55	41	42	58	77	36	34	73	48
50-60	14	21	24	30	21	25	25	38	17	17	31	30
60 and upwards	8	13	14	20	11	12	12	18	11	12	14	12
Total	348	399	639	843	507	510	768	962	430	492	820	728
Population	119,037	....	208,918	....	174,344	....	257,586	....	153,832	....	275,207	....
Proportion, 1 in	342	298	327	248	344	342	335	268	358	313	336	378
	Sussex.		Warwick.		Westmoreland.		Wilts.		Worcester.		York.	
	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.
Under 15	28	24	35	63	5	1	24	20	21	28	147	86
15-20	96	92	131	226	21	4	91	100	75	116	565	371
20-25	96	97	142	200	20	8	88	108	78	134	570	485
25-30	62	54	96	111	12	6	53	56	52	84	371	337
30-40	68	72	98	131	12	4	56	73	55	86	371	317
40-50	35	37	48	61	7	2	31	40	28	42	181	134
50-60	16	18	20	21	3	1	14	19	12	20	83	60
60 and upwards	9	11	10	12	2	1	9	8	7	6	41	28
Total	410	405	580	825	82	27	366	424	328	516	2,329	1,818
Population	146,552	....	194,782	....	28,074	....	127,454	....	114,249	....	785,409	....
Proportion, 1 in	357	362	335	236	342	1,010	348	301	348	221	337	432

TABLE H.—continued.

Ages.	Anglesea.		Brecon.		Cardigan.		Carmarthen.		Carmarvon.		Denbigh.	
	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.
Under 15	5	...	5	1	6	1	10	3	7	1	8	5
15—20	16	2	19	5	23	1	36	8	27	3	32	9
20—25	15	2	21	13	20	6	31	18	27	8	30	18
25—30	10	1	14	9	13	6	20	9	19	3	19	11
30—40	10	3	14	11	14	3	22	15	19	3	20	9
40—50	6	1	6	9	7	1	11	9	9	2	10	9
50—60	3	1	3	2	4	...	6	3	4	1	5	2
60 and upwards	2	...	2	1	2	1	3	1	2	1	3	2
Total	67	10	84	51	89	19	139	66	114	22	127	65
Population	24,293	...	28,023	...	32,183	...	50,567	...	39,437	...	44,373	...
Proportion, 1 in	363	2,429	334	549	362	1,694	363	766	346	1,656	349	683
	Flint.		Glamorgan.		Merioneth.		Montgomery.		Pembroke.		Radnor.	
	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.	Calculated.	Proportion. Actual.
Under 15	6	1	15	8	3	1	6	1	8	1	2	...
15—20	25	6	60	24	12	1	24	13	28	6	9	4
20—25	24	9	73	32	12	2	22	18	24	11	9	4
25—30	15	5	48	28	9	2	14	9	16	6	5	3
30—40	16	14	47	26	9	2	15	11	17	6	5	6
40—50	8	4	19	13	4	2	8	7	9	3	3	3
50—60	4	1	8	6	2	1	4	6	4	3	2	1
60 and upwards	2	1	4	2	1	...	2	3	3	...	1	1
Total	100	41	274	139	52	11	95	68	109	36	36	22
Population	33,456	...	87,414	...	19,262	...	34,245	...	40,119	...	12,804	...
Proportion, 1 in	335	816	319	629	370	1,751	360	504	368	1,114	355	582

TABLE I.—*Males*.—continued. For the Agricultural Counties.

COUNTY AND DISTRICT.	Under 15.		15-20.		20-25.		25-30.		30-40.		40-50.		50-60.		60 & upwards.		Total.	
	Calculated.	Actual.	Calculated.	Actual.	Calculated.	Actual.	Calculated.	Actual.	Calculated.	Actual.	Calculated.	Actual.	Calculated.	Actual.	Calculated.	Actual.	Calculated.	Actual.
North Eastern and Eastern	33	11	125	75	129	129	82	81	83	81	41	37	20	11	11	5	527	433
	37	54	138	176	128	164	81	89	89	92	50	45	22	25	14	16	559	661
	29	26	106	116	100	141	63	71	68	75	36	34	17	17	11	12	430	492
	32	30	114	115	118	151	76	85	79	99	43	48	19	20	10	11	491	589
Midland	131	121	483	512	475	585	302	326	319	347	173	164	78	76	46	44	2,007	2,175
	15	11	56	47	61	66	37	37	37	36	20	20	8	10	4	1	238	228
	18	11	70	46	69	75	43	45	46	43	24	24	11	11	6	6	287	261
	15	10	54	51	53	72	34	39	36	50	18	23	8	8	5	5	223	258
Southern and South- Western	10	9	36	38	35	47	22	29	24	31	12	19	5	7	3	4	147	184
	11	10	53	60	50	69	33	42	34	48	18	20	9	9	5	5	216	263
	15	15	55	48	57	70	34	45	36	49	19	22	9	9	5	7	230	265
	15	12	54	58	55	65	35	34	38	46	19	19	9	12	5	5	230	251
Southern South- Western	102	78	378	318	380	464	238	271	251	303	130	117	59	66	33	33	1,571	1,710
	28	24	96	92	96	97	62	54	68	72	35	37	16	18	9	11	410	405
	32	26	119	101	125	140	79	83	79	78	41	42	21	25	11	12	507	510
	24	20	91	100	88	108	53	56	56	73	31	40	14	19	9	8	366	424
Total of the Agricultural Counties	16	7	56	39	51	45	34	26	37	36	19	14	9	7	6	9	228	183
	39	50	118	220	178	224	90	128	95	116	51	55	24	30	14	20	639	843
Total of the Agricultural Counties	139	127	510	555	538	614	318	347	335	375	177	188	84	99	49	60	2,150	2,365
	372	326	1,371	1,415	1,393	1,663	858	944	905	1,025	480	499	221	241	128	137	5,728	6,250

TABLE J.—ENGLAND AND WALES.—Males.

Correction of the Calculated Average Amount of Crime for each County to compensate for the Increase of Population in the Years 1842, 1843, and 1844.

Annual rate of increase = 1·029533 = λ . 0·0126075.

Counties.	Total Crime λ .	Amount of Crime according to the average of England and Wales. Corrected λ and number.		Actual Crime.	Difference per cent.
Bedford	147 = 2·1673173	2·1799248	151·30	184	+ 21·8
Berks	230 = 2·3617278	2·3743353	236·77	251	+ 5·9
Bucks	216 = 2·3344538	2·3470613	222·36	263	+ 18·5
Cambridge	238 = 2·3765770	2·3891845	245·01	228	- 6·9
Cheshire	575 = 2·7596678	2·7712753	590·57	792	+ 34·2
Cornwall	460 = 2·6627578	2·6753653	473·55	215	- 54·5
Cumberland	248 = 2·3944517	2·4070592	255·30	81	- 68·2
Derby	395 = 2·5965971	2·6092046	406·63	276	- 32·2
Devon	712 = 2·8524800	2·8659875	732·97	535	- 27·0
Dorset	228 = 2·3579348	2·3705423	234·72	183	- 22·1
Durham	478 = 2·6794279	2·6920354	492·08	248	- 49·6
Essex	491 = 2·6910815	2·7036890	505·46	589	+ 16·6
Gloucester	593 = 2·7730547	2·7856622	610·47	932	+ 52·8
Hereford	163 = 2·2121876	2·2247951	167·80	197	+ 17·3
Herts	223 = 2·3483049	2·3609124	229·57	258	+ 12·2
Hunts	85 = 1·9294189	1·9420264	87·59	58	- 33·3
Kent	787 = 2·8959747	2·9085822	810·18	835	+ 3·1
Lancaster	2,501 = 3·3981137	3·4107212	2574·67	2,802	+ 8·8
Leicester	303 = 2·4814426	2·4940501	311·92	431	+ 38·1
Lincoln	527 = 2·7218106	2·7344181	542·52	433	- 20·1
Middlesex	2,326 = 3·3666097	3·3792172	2394·51	3,076	+ 28·4
Monmouth	225 = 2·3521825	2·3647900	231·62	201	- 13·3
Norfolk	559 = 2·7474118	2·7600193	575·46	661	+ 14·9
Northampton	287 = 2·4578819	2·4704894	295·45	261	- 11·5
Northumberland	361 = 2·5575072	2·5701147	371·63	197	- 47·0
Notts	346 = 2·5390761	2·5516836	356·19	307	- 13·8
Oxford	230 = 2·3617278	2·3743353	236·77	265	+ 11·8
Rutland	30 = 1·4771213	1·4897288	30·88	31	+ 4
Salop	248 = 2·5415792	2·5541867	358·25	399	+ 11·4
Somerset	639 = 2·8055009	2·8181084	659·34	843	+ 27·9
Southampton	507 = 2·7050080	2·7176155	521·93	510	- 2·3
Stafford	768 = 2·8853612	2·8979687	790·62	962	+ 21·6
Suffolk	430 = 2·6334685	2·6460760	442·67	492	+ 11·1
Surrey	820 = 2·9138139	2·9264214	844·16	728	- 13·7
Sussex	410 = 2·6127839	2·6253914	422·08	405	- 4·0
Warwick	580 = 2·7634280	2·7760355	597·08	825	+ 38·2
Westmoreland	82 = 1·9138139	1·9264214	84·41	27	- 67·8
Wilts	366 = 2·5634811	2·5760886	376·78	424	+ 12·5
Worcester	328 = 2·5158738	2·5284813	337·66	516	+ 52·7
York	2,329 = 3·3671695	3·3797770	2397·60	1,818	- 24·2
Anglesea	67 = 1·8260748	1·8386823	68·97	10	- 85·5
Brecon	84 = 1·9242793	1·9368868	86·47	51	- 40·7
Cardigan	89 = 1·9493960	1·9619975	91·62	19	- 79·3
Carmarthen	139 = 2·1430148	2·1556223	143·10	66	- 53·9
Carnarvon	114 = 2·0659049	2·0695124	117·36	22	- 81·2
Denbigh	127 = 2·1038037	2·1164112	130·71	65	- 50·4
Flintshire	100 = 2·0000000	2·0126075	102·94	41	- 60·2
Glamorgan	274 = 2·1377506	2·1503581	282·07	139	- 50·7
Merioneth	52 = 1·7160033	1·7286108	53·53	11	- 79·2
Montgomery	95 = 1·9777236	1·9903311	97·80	68	- 30·6
Pembroke	109 = 2·0374265	2·0500340	112·21	36	- 67·8
Radnor	36 = 1·5563025	1·5689100	37·06	22	- 40·5

TABLE K.—Males.—continued.
Difference between the Actual Amount of Crime in each District and the Average for England and Wales.

Ages.	AGRICULTURAL COUNTIES.											
	North Eastern and Eastern.				Midland.			Southern and South Western.			Total.	
	Lincoln, Norfolk, Suffolk, and Essex.				Cambridge, Northampton, Herts, Beds, Bucks, Oxford, and Berks.			Sussex, Hants, Wilts, Dorset, and Somerset.				
	Calcu- lated.	Actual.	Difference per cent.	Calcu- lated.	Actual.	Difference per cent.	Calcu- lated.	Actual.	Difference per cent.	Calcu- lated.	Actual.	Difference per cent.
Under 15	131	121	- 7.6	102	78	- 23.5	139	127	- 8.6	372	326	- 12.3
15—20	483	512	+ 6.0	378	348	- 7.9	510	555	+ 8.8	1,371	1,415	+ 3.2
20—25	475	585	+ 23.1	380	464	+ 22.1	538	614	+ 14.1	1,393	1,663	+ 19.3
25—30	302	326	+ 7.9	238	271	+ 13.8	318	347	+ 9.1	858	944	+ 10.0
30—40	319	347	+ 8.7	251	303	+ 20.7	335	375	+ 11.9	905	1,025	+ 13.3
40—50	173	164	- 5.2	130	147	+ 13.0	177	188	+ 6.2	480	499	+ 3.5
50—60	78	76	- 2.5	59	66	+ 11.8	84	99	+ 17.8	221	241	+ 9.1
60 and upwards.	46	44	- 4.3	33	33	...	49	60	+ 24.5	128	137	+ 7.0
Total	2,007	2,175	+ 8.3	1,571	1,710	+ 8.8	2,150	2,365	+ 10.0	5,728	6,250	+ 9.1
Corrected Total ...	2,066	...	5.3	1,617	...	+ 5.7	2,215	...	+ 6.8	5,898	...	+ 5.9
Population		704,380			545,243			740,727			1,990,350	
Proportion, 1 in ...		340-324			337-318			334-313			337-318	

TABLE L.

Difference between the Actual Amount of Crime in each District, and the Average for England and Wales.—Males.

GROUP 1.

In England and Wales the average ratio of Agriculturists to the whole Population is 7·9 per cent. In the following there is the least average of Agriculturists.

Counties.	Ratio of Agriculturists.	Calculated Average.	Actual Crime.
Lancaster	3·0	2574·67	2,802
Durham	4·4	492·08	248
Surrey	4·4	844·16	728
Stafford	5·7	790·62	962
Warwick.....	6·0	597·08	825
Monmouth.....	6·5	231·62	201
Chester	6·7	590·57	792
Northumberland	6·9	371·63	197
Derby	7·1	406·63	276
Gloucester	7·2	610·47	932
		7509·53	7,965
Lancaster		2574·67	2,802
		4934·86	5,163

GROUP 2.

Highest average of Agriculturists.

Counties.	Ratio of Agriculturists.	Calculated Average.	Actual Crime.
Lincoln	15·9	542·52	433
Rutland	15·6	30·88	31
Essex	14·8	505·46	589
Hereford.....	14·6	167·80	197
Hants	14·5	87·50	58
Wilts	14·1	376·78	424
Bucks	14·0	151·30	184
Bedford	13·8	222·36	263
Berks	13·2	236·77	251
Cambridge	13·9	245·01	228
Suffolk	13·9	424·67	492
		3009·05	3,150

TABLE L.—continued. Males.

GROUP 3.

In England and Wales the average ratio of Manufacturers to the whole Population is 16·5 per cent. In the following Counties there is the highest average of Manufacturers.

Counties.	Ratio of Manufacturers.	Calculated Average.	Actual Crime.
Lancaster	28·1	2574·67	2,802
Chester	23·5	590·57	792
Warwick.....	21·9	597·08	825
Notts	20·6	356·19	307
Middlesex	20·0	2394·51	3,076
Leicester	19·2	311·92	431
Derby	18·9	406·63	276
Stafford	18·7	790·62	962
Lancashire and Middlesex....		8,022·19	9,478
		4969·18	5,878
		3053·01	3,593

GROUP 4.—Lowest average of Manufacturers.

Counties.	Ratio of Manufacturers.	Calculated Average.	Actual Crime.
Cambridge	8·9	245·01	228
Huntingdon	9·2	87·50	58
Rutland	9·2	30·88	31
Essex	9·3	505·46	589
Lincoln	9·6	542·52	433
Sussex	9·7	422·08	405
Hereford.....	9·8	167·80	197
		2001·25	1,941

GROUP 5.

The average ratio of Agriculturists to Manufacturers in England and Wales is 7·9 to 16·5, diff. = 8·6. In the following Counties the Manufacturers are above the average difference by $33\frac{1}{3}$ per cent.

Counties.	Agricultural Ratio.	Manufacturing Ratio.	Difference.	Calculated Average.	Actual Crime.
Chester	6·7	23·5	16·9	590·57	792
Derby	7·1	18·9	11·8	406·63	276
Lancaster	3·0	28·1	25·1	2574·67	2,802
Middlesex	1·1	20·0	18·9	2394·51	3,076
Warwick	6·0	21·9	15·9	597·08	825
Stafford	5·7	18·7	13·0	790·62	962
Notts.....	8·2	20·6	12·4	356·19	307
Surrey	4·4	16·2	11·8	844·16	728
Leicester	7·9	19·2	11·3	311·92	431
Lancashire and Middlesex				8866·35	10,199
				4969·18	5,878
				3897·17	4,321

TABLE L.—continued. *Males.*

GROUP 6.

In the following Counties the Agriculturists are above the average ratio by at least double the whole average difference.

Counties.	Agricultural Ratio.	Manufacturing Ratio.	Difference.	Calculated Average.	Actual Crime.
Bucks	14.0	12.6	1.4	222.36	263
Bedford	13.8	10.7	3.1	151.30	184
Sussex	11.9	9.7	2.2	422.08	405
Berks	13.2	10.2	3.0	236.77	251
Wilts	14.1	10.8	3.3	376.78	424
Suffolk	13.9	10.0	3.9	422.67	492
Hereford	14.6	9.9	4.7	167.80	197
Cambridge	13.9	8.9	5.0	215.01	228
Hunts	14.5	9.2	5.3	87.50	58
Essex	14.8	9.3	5.5	505.46	589
Lincoln	15.9	9.6	6.3	542.52	433
Rutland	15.6	9.2	6.4	30.88	31
				3411.13	3,555

GROUP 7.

Places in which the Agricultural and Manufacturing interests are nearly equal.

Counties.	Agricultural Ratio.	Manufacturing Ratio.	Difference.	Calculated Average.	Actual Crime.
Bedford	13.8	13.3	0.5 +	151.30	184
Dorset	10.9	11.1	0.3 -	234.72	183
Hertford	12.8	12.8	0.0	229.57	258
Norfolk	12.2	11.8	0.4 +	557.46	661
Northampton	12.9	13.5	0.6 -	295.45	261
Salop	11.7	11.9	0.2 -	358.25	399
Southampton	10.0	10.6	0.6 -	521.93	510
				2348.68	2,456

GROUP 8.

In England and Wales the average proportion of persons of independent means = 2.8.

In the following Counties the proportion is at least 33 per cent. above the average.

Counties.	Ratio.	Calculated Average.	Actual Crime.
Surrey	4.2	841.16	728
Westmoreland	4.0	84.41	27
Devon	3.8	732.97	535
Cumberland	3.7	255.30	81
Gloucester	3.7	610.47	932
		2527.31	2,303

TABLE L.—*continued. Males.*

GROUP 9.

Counties in which the proportion is 33 per cent. less than the average

Counties.	Ratio.	Calculated Average.	Actual Crime.
Bedford	1·6	151·30	184
Stafford	1·6	790·62	962
Derby	1·9	406·63	276
Monmouth	1·9	231·62	201
Northampton	1·9	295·45	261
Nottingham	1·9	356·19	307
Bucks	2·0	222·36	263
Hunts	2·0	87·50	58
		2541·67	2,512

TABLE M.

In England and Wales 33 per cent. (Males) signed the Marriage Registers by their *Marks*. In the following Counties the highest proportion did so, being all at least 33½ per cent. above the average.

GROUP 1.

Counties.	Ratio signing with their Marks.	Calculated Average.	Actual Crime.
Hertford	50	229·57	258
Monmouth	51	231·62	201
Bedford	49	151·30	184
Cambridge	47	245·01	228
Suffolk	47	442·67	492
Essex	47	505·46	589
Worcester	46	337·66	516
Hunts	44	87·50	58
		2230·79	2,526

GROUP 2.

Counties in which the least proportion signed with their *Marks*, being all at least 25 per cent. below the average.

Counties.	Ratio signing with their Marks.	Calculated Average.	Actual Crime.
Bucks	11	222·36	263
Cumberland	16	255·30	81
Surrey	17	844·16	728
Northumberland	18	371·63	197
Westmoreland	20	81·41	27
Devon	23	732·97	535
Durham	26	492·08	248
		3002·91	2,079

TABLE N. GROUP I.

Showing for the Group of least Agricultural Counties the Amount of Crime in those Counties in which the greatest and also the least proportion signed their Marriage Certificates with Marks.

COUNTIES. Section (a).	Highest Proportion.			COUNTIES. Section (b).	Lowest Proportion.		
	Ratio signing with Marks.	Calculated Average.	Actual Crime.		Ratio signing with Marks.	Calculated Average.	Actual Crime.
Lancashire ...	38	2574.67	2,802	Durham	26	492.08	248
Stafford	42	790.62	962	Surrey	17	844.16	728
Monmouth	51	231.62	201	Northumb.	18	371.63	197
Chester	38	590.57	792	Derby	30	406.63	276
Warwick.....	32	597.08	825	Gloucester	28	610.47	932
		4784.56	5,582			2724.97	2,331
Lancashire		2574.67	2,802				
		2209.89	2,780				

GROUP 2.—Greatest Agricultural Counties.

COUNTIES. Section (a).	Highest Proportion.			COUNTIES. Section (b).	Lowest Proportion.		
	Ratio signing with Marks.	Calculated Average.	Actual Crime.		Ratio signing with Marks.	Calculated Average.	Actual Crime.
Bedford	49	222.36	263	Bucks	14	151.30	184
Essex	47	505.46	589	Lincoln.....	32	542.52	433
Cambridge	47	245.01	228	Hereford	38	167.80	197
Suffolk	47	442.67	492	Rutland	40	30.88	31
Hunts.....	44	87.50	58	Berks	41	236.77	251
		1503.00	1,630	Wilts	43	376.78	424
						1506.05	1,520

GROUP 3.

Showing for the Group of greatest Manufacturing Counties the Amount of Crime in those Counties in which the greatest and also the least proportion signed their Marriage Certificates with Marks.

COUNTIES. Section (a).	Highest Proportion.			COUNTIES. Section (b).	Lowest Proportion.		
	Ratio signing with Marks.	Calculated Average.	Actual Crime.		Ratio signing with Marks.	Calculated Average.	Actual Crime.
Stafford	42	790.62	962	Middlesex	12	2394.51	3,076
Lancaster	38	2574.67	2,802	Derby	30	406.63	276
Chester	38	590.57	792	Leicester	32	311.92	431
Notts	33	356.19	825	Warwick	32	597.08	825
		4312.05	5,381			3710.14	4,608
Lancaster ..		2574.67	2,801	Middlesex.....		2394.51	3,076
		1737.38	2,579			1315.63	1,532

TABLE N.—*continued.*
GROUP 4.—Least Manufacturing Counties.

COUNTIES. Section (a).	Highest Proportion.			COUNTIES. Section (b).	Lowest Proportion.		
	Ratio signing with Marks.	Calculated Average	Actual Crime.		Ratio signing with Marks.	Calculated Average.	Actual Crime.
Cambridge	47	245·01	228	Sussex	28	422·08	405
Essex	47	505·46	589	Lincoln	32	544·52	433
Huntingdon..	44	87·50	58	Hereford	38	167·80	197
Rutland	40	30·88	31			1134·40	1,035
		868·85	906				

GROUP 5.

Showing for the Group of Counties in which the Manufacturing Interest is 33½ per cent. above the Manufacturing Average, the Amount of Crime in those Counties in which the greatest and also the least proportion signed their Marriage Certificates with Marks.

COUNTIES. Section (a).	Highest Proportion.			COUNTIES. Section (b).	Lowest Proportion.		
	Ratio signing with Marks.	Calculated Average.	Actual Crime.		Ratio signing with Marks.	Calculated Average.	Actual Crime.
Stafford	42	790·62	962	Middlesex	12	2394·51	3,076
Chester	38	590·57	792	Surrey	17	844·16	728
Lancaster	38	2574·67	2,802	Derby	30	406·63	276
Notts	33	356·19	307	Leicester	32	311·92	431
Warwick	32	597·08	825			3957·22	4,511
		4909·13	5,688			2394·51	3,076
Lancaster		2574·67	2,802			1562·71	1,435
		2334·46	2,886				

GROUP 6.

In the following Counties the Agriculturists are above the ratio by at least double the whole average difference.

COUNTIES. Section (a).	Highest Proportion.			COUNTIES. Section (b).	Lowest Proportion.		
	Ratio signing with Marks.	Calculated Average.	Actual Crime.		Ratio signing with Marks.	Calculated Average.	Actual Crime.
Bedford	49	151·30	184	Bucks	14	222·36	263
Suffolk	47	422·69	492	Sussex	28	422·08	405
Cambridge	47	245·01	228	Lincoln	32	542·52	433
Essex	47	505·46	589	Hereford	38	167·80	197
Hunts	44	87·50	58	Rutland	40	30·88	31
Wilts	43	376·78	424	Berks	41	236·77	251
		1788·74	1,975			1622·41	1,580

TABLE N.—continued.

GROUP 7.

Showing for the Group of Counties in which the Agricultural and Manufacturing Interests are nearly equal, the Amount of Crime in those Counties in which the greatest and also the least proportion signed their Marriage Certificates with their Marks.

COUNTIES. Section (a)	Highest Proportion.			COUNTIES. Section (b).	Lowest Proportion.		
	Ratio signing with Marks.	Calculated Average.	Actual Crime.		Ratio signing with Marks.	Calculated Average.	Actual Crime.
Hereford.....	50	229·57	258	Dorset	30	234·72	183
Bedford	49	151·30	184	Southampton....	32	521·93	510
Norfolk	42	557·46	661	Northampton ..	38	295·45	261
Salop	41	358·25	399			1052·10	954
		1296·58	1,502				

GROUP 8.

Showing for the Group of most Wealthy Counties the Amount of Crime in those Counties in which the greatest and also the least proportion signed their Marriage Certificates with Marks.

COUNTIES. Section (a).	Highest Proportion.			COUNTIES. Section (b).	Lowest Proportion.		
	Ratio signing with Marks.	Calculated Average.	Actual Crime.		Ratio signing with Marks.	Calculated Average.	Actual Crime.
Devon	28	732·97	535	Cumberland	16	255·30	81
Gloucester ...	28	610·47	932	Surrey	17	844·16	728
		1343·44	1,467	Westmoreland	20	84·41	27
						1183·87	836

GROUP 9.

Counties of Least Wealth.

COUNTIES. Section (a).	Highest Proportion.			COUNTIES. Section (b).	Lowest Proportion.		
	Ratio signing with Marks.	Calculated Average.	Actual Crime.		Ratio signing with Marks.	Calculated Average.	Actual Crime.
Monmouth	51	231·62	201	Bucks	14	222·36	263
Bedford	49	151·30	184	Derby	30	406·63	276
Hunts	44	87·50	58	Nottingham	33	356·19	307
Stafford	42	790·62	962	Northampton..	38	295·45	261
		1261·01	1,405			1280·63	1,107

TABLE O. Counties in which the actual Crime exceeds the average Ratio for England and Wales.—Males.

NAME OF COUNTY.		Ratio of whole Population engaged in		Proportion of Males signing with marks the Marriage Registers.	Ratio of Persons of Independent Means.	CRIME.		
		Agriculture.	Manufacture.			Calculated.	Actual.	Difference per Cent.
Counties in which the excess of crime is under 15 per cent.	Berkshire	13.2	10.2	41	3.0	236.77	251	5.9
	Hertfordshire	12.8	12.8	50	2.4	229.57	258	12.2
	Kent	8.7	10.2	29	3.4	810.18	835	3.1
	Leicester	3.0	28.1	38	2.0	2574.67	2,802	8.8
	Northampton	12.2	11.8	42	2.5	575.46	661	14.9
	Oxford	12.9	10.7	35	2.4	236.77	265	11.8
	Rutland	15.6	9.2	40	2.0	30.88	31	.4
	Salop	11.7	11.9	41	2.2	358.25	399	11.4
	Suffolk	13.9	10.0	47	2.4	442.67	492	11.1
	Wiltshire	14.1	10.8	43	2.3	376.78	424	12.5
	Total					5872.00	6,418	9.3
Counties in which the excess of crime is 15 per cent. and under 30 per cent.	Bedfordshire	13.8	13.3	49	1.6	151.30	184	21.8
	Buckinghamshire	14.0	12.6	14	2.0	222.36	263	18.5
	Essex	14.8	9.3	47	2.2	505.46	589	16.6
	Hereford	14.6	9.9	38	2.9	167.80	197	17.3
	Middlesex	1.1	20.0	12	4.9	2394.51	3,076	28.4
	Somerset	10.2	13.0	37	3.4	659.34	843	27.9
	Stafford	5.7	18.7	42	1.6	790.62	962	21.6
	Total					4891.39	6,114	25.0
Counties in which the excess of crime is 30 per cent. and upwards	Cheshire	6.7	23.5	38	2.1	590.57	792	34.2
	Gloucester	7.2	15.1	28	3.7	610.47	932	52.8
	Leicester	7.9	19.2	32	2.0	311.92	431	38.1
	Worcester	10.1	16.7	46	2.3	337.66	516	52.7
	Total					1850.62	2,671	44.3

TABLE O.—continued. *Countries in which the actual Crime is less than the average Ratio for England and Wales.—Males.*

NAME OF COUNTY.	Ratio of whole Population engaged in		Proportion of Males signing with Marriage Registers.	Ratio of Persons of Independent Means.	CRIME.		
	Agriculture.	Manufacture.			Calculated.	Actual.	Difference per Cent.
Countries in which crime is below the average of England and Wales by not more than 15 per cent.	13.9	8.9	47	2.4	245.01	228	6.9
	6.5	13.1	51	1.9	231.62	201	13.3
	12.9	13.5	38	1.9	295.45	261	11.5
	8.2	20.6	33	1.9	356.19	307	13.8
	10.0	10.6	32	3.3	521.93	510	2.3
	4.4	16.2	17	4.2	844.16	728	13.7
Sussex	11.9	9.7	28	3.0	422.08	405	4.0
Total					2916.44	2,640	9.4
Countries in which the difference is 15 and under 30 per cent.	10.2	13.0	28	3.8	732.97	535	27.0
Devonshire	10.9	11.1	30	3.2	234.72	183	22.1
Dorset	15.9	9.6	32	2.5	542.52	433	20.1
Lincoln	13.8 to 4.3	11.6 to 24.6	21 to 37	1.9 to 4.1	2397.60	1,818	24.2
Yorkshire					3907.81	2,969	24.0
Total							
Countries in which the difference is 30 per cent. and upwards	8.8	14.6	16	3.7	255.30	81	68.2
Cumberland	7.9	9.3	35	2.7	475.55	215	54.5
Cornwall	7.1	18.9	30	1.9	406.63	276	32.2
Derby	4.4	13.9	26	2.5	492.08	248	49.6
Durham	14.5	9.2	44	2.0	87.50	58	33.3
Hunts	6.9	14.9	18	2.8	371.63	197	47.0
Northumberland	11.6	13.8	20	4.0	84.41	27	67.8
Westmoreland							
Total					2171.10	1,102	49.2
WALES	10.3-12.7	9.0-10.5	46-48	2.6	1323.87	550	58.4

Notice of some Vital Statistics of the United States, in a Letter to the Hon. Horace Mann, by MR. EDWARD JARVIS, of Dorchester, Massachusetts, United States, dated 22nd April, 1845. Abstracted and compared with the Statistics of England and Wales. By THOS. LAYCOCK, M.D.

[Read before the Statistical Section of the British Association, at Cambridge, 23rd June, 1845.]

THE total white population of the States in 1840 was 14,261,638. This population was thus distributed according to age and latitude—

Ages.	NORTHERN DIVISION.	MIDDLE DIVISION.	SOUTHERN DIVISION.
	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Michigan, Iowa, Wisconsin.	New Jersey, Pennsylvania, Delaware, Maryland, Columbia, Virginia, Ohio, Indiana, Illinois, Missouri, Kentucky.	North Carolina, South Carolina, Georgia, Alabama, Mississippi, Arkansas, Louisiana, Florida, Tennessee.
	Lat. 41° to 46°.	Lat. 36° to 42°.	Lat. 29° to 36°.
0— 5	721,202	1,244,375	509,990
5— 10	622,307	1,031,403	400,680
10— 15	554,918	830,214	329,028
15— 20	538,768	739,030	271,141
20— 30	955,589	1,210,365	443,184
30— 40	614,337	799,298	272,135
40— 50	399,909	471,283	167,622
50— 60	246,442	276,959	96,129
60— 70	146,096	156,410	52,021
70— 80	77,761	52,624	21,237
80— 90	23,001	16,599	6,007
90—100	2,584	2,221	985
100 and upwards }	167	371	245
Total...	4,900,081	6,791,152	2,570,404

The proportions of these quinquennial ages reduced to the proportion of 100,000, is as follows:—

Ages.	Northern Division.	Middle Division.	Southern Division.	England and Wales.
0— 5	14,718	18,323	18,840	13,240
5— 10	12,679	15,031	15,587	11,970
10— 15	11,324	12,224	12,800	10,890
15— 20	10,995	10,862	10,540	9,970
20— 30	19,501	17,822	17,202	17,800
30— 40	12,531	10,738	10,589	12,890
40— 50	8,159	6,939	6,521	9,590
50— 60	5,029	4,078	3,739	6,450
60— 70	2,981	2,303	2,023	4,400
70— 80	1,586	907	826	2,160
80— 90	469	214	233	590
90—100	52	32	38	50
100 and upwards }	3	5.5	9	

Or to reduce these numbers still further

Age.	Northern Division.	Middle Division.	Southern Division.	England and Wales.
Under 20	49,716	56,440	57,767	46,000
20 to 40	32,032	28,560	27,791	30,690
40 to 60	13,188	11,017	10,260	16,040
60 to 80	4,567	3,200	2,849	6,560
80 & upwards	424	281½	280	.....
Approximate } average age	23·29 yrs.	22 yrs.	19·44 yrs.	.....
Medium age....	20 yrs. 1½ mths.	17 yrs. 4 mths.	16 yrs. 3 mths.	.....

The decrement per cent. of the white population of the United States as compared with England is as follows:—

Ages.	Northern Division.	Middle Division.	Southern Division.	England and Wales.
0 to 5	13·71	16·31	21·43	} 17·55 14·10
5 — 10	10·82	18·53	17·88	
10 — 15	2·91	10·99	17·59	
	Increment.	Increment.	Increment.	
15 — 20	77·36	63·77	63·45	
	Decrement.	Decrement.	Decrement.	
20 — 30	35·71	38·09	38·6	28·33
30 — 40	34·9	37·14	38·4	25·59
40 — 50	38·37	41·21	42·65	33·26
50 — 60	40·71	43·49	47·9	32·14
60 — 70	46·77	59·96	59·19	50·9
70 — 80	70·3	73·44	71·7	73·02
80 — 90	88·76	86·61	83·6	91·77
90 — 100 } and upwards }	93·53	71·33	75·12	

Sanitary Statistics of Dorchester and Brookline, Massachusetts: and of Louisville and other Towns on the Mississippi.

The deaths in Dorchester from 1817 to 1844 were 1767, and they took place at different ages, in different conditions of life as follows:—

RATIO PER CENT.					
Ages.	Farmers.	Merchants.	Mechanics.	Labourers.	Total.
under 1 year	9·0	15·45	22·19	23·78	18·44
1 and under 2	3·4	6·11	6·48	7·60	6·22
2 to 5	6·44	7·64	8·22	8·15	7·75
5 — 10	0·75	4·24	4·23	4·2	3·73
10 — 20	4·16	6·45	6·48	3·7	5·32
20 — 30	11·74	10·0	8·47	10·33	10·0
30 — 40	4·92	11·71	8·72	10·13	9·56
40 — 50	7·95	8·65	6·73	8·96	8·2
50 — 60	9·47	6·95	7·48	7·4	7·58
60 — 70	14·39	7·47	8·47	5·65	8·2
70 — 80	12·50	9·0	8·47	4·85	8·2
80 — 90	12·87	5·09	3·24	3·70	5·43
90 and upwards	2·27	1·18	0·74	1·35	1·3

PER CENTAGE OF DEATHS TO TOTAL DEATHS.

Age.	Dorchester, Massachusetts.	Sheffield in 1840—41.	Devon.
Under 5	32.41	48.60	30.59
5 to 10	3.73	4.80	4.31
10 — 20	5.32	5.85	5.28
20 — 30	10.00	6.10	6.87
30 — 40	9.56	5.97	5.78
40 — 50	8.20	7.02	5.78
50 — 60	7.58	5.10	6.63
60 — 70	8.20	6.73	10.22
70 — 80	8.20	5.89	13.50
80 — 90	5.43	1.71	9.09
90 and upwards }	1.30	0.12	1.63

From this table drawn up, as regards Dorchester, by Mr. Jarvis, it does not appear that proportions of deaths at the age specified, are to the number living at these ages, but rather to the number of deaths in each class; as for example, of 100 deaths of the farming class 12 were at ages between 70 and 80, while of the same number of deaths in the class of mechanics only 3 were of those ages.

The average age at death was as follows:—

	Number of Deaths.		Average Age at Death.
Farmers	264	.....	45 years 8 $\frac{1}{4}$ months.
Merchants, &c.	589	.....	33 " 3 "
Mechanics	401	.....	29 " 6 $\frac{3}{4}$ "
Labourers	513	.....	27 " 5 $\frac{1}{2}$ "
Total and average	1,767		32 6 $\frac{1}{2}$

The sanitary condition of Dorchester is, according to these results, closely analogous to that of the large towns of England.

The number of deaths in middle adult age, shows that there is an accession of an immigrant adult population, as occurs also in the large towns of England; and the smaller proportion of aged persons compared with Devon, is in favour of an opinion that the salubrity of Dorchester in Massachusetts, is inferior to that of the county of Devon. The larger proportion of the deaths of aged persons among the better conditioned classes of society in Dorchester, shows also, that as with us the private hygiene of the people has a very considerable influence on the mortality. Thus 42 persons of the total deaths were aged above 60, in the farmer class, while only 15 per cent. of the deaths in labouring class attained that age.

PROCEEDINGS OF THE STATISTICAL SOCIETY OF LONDON.

Eighth Ordinary Meeting, 1845-6. Monday, 15th June, 1846.

The following papers were read:—

1. Statistical Account of the Provisions for Paving, Lighting, Cleansing, and preventing Nuisances in the Streets of the Metropolis. By Joseph Fletcher, Esq., Hon. Sec.
2. Selections from Statistics of Batticaloa, Ceylon. By Selby Taylor, Esq.
3. Comparative Statistics of the Committals for Trial in London and Birmingham, and in England and Wales respectively. By H. Knight, Esq.

MISCELLANEOUS.

STATE OF THE PUBLIC HEALTH IN THE LAST QUARTER.

“THE Quarterly Returns are obtained from 115 Districts, sub-divided into 576 Sub-Districts. *Thirty-four* Districts are in the Metropolis, and the remaining 81 Districts comprise, with some agricultural Districts, the principal towns and cities of England. The population was 6,579,693 in 1841.”

43,582 deaths were registered in the spring quarter ending June 30th—a number greater by 2,853 than were registered in the corresponding quarter of 1845, and 4,731 more than in the June quarter of 1844. The mortality was little lower than in the preceding mild winter quarter, when the deaths were nearly 5000 less than the average. The districts of Lancashire and Yorkshire were the most unhealthy. The subjoined Table shows that, taking the whole of the 115 districts, the mortality was above the average in the spring quarters (ending June 30th) of 1839, 1840, 1846; and below the average in the spring quarters of 1841, 1842, 1843, 1844, 1845. There was an evident tendency to decline through the 8 years; but in 1846 this tendency was counteracted, and the deaths exceeded the calculated average.

	1839	1840	1841	1842	1843	1844	1845	1846
Deaths Registered in the June quarters of 8 years	41,120	41,903	38,961	38,441	40,216	38,851	40,729	43,582
Deaths which would have been registered if the mortality had been uniform, and the numbers had increased from 1839 at the rate of 1·75 per cent. annually	38,090	38,757	39,435	40,125	40,828	41,542	42,269	43,009
UNHEALTHY SEASONS. Difference above the calculated number	3,030	3,146	..	..	..	..	..	573
HEALTHY SEASONS. Difference below the calculated number .....	..	..	474	1,684	612	2,691	1,540	..

The inadequate supplies of water by companies, the imperfect sewerage in towns, the open drains and ditches, and the general neglect of cleanliness, leave everywhere

great quantities of organic matter to decay and putrify in the midst of crowded populations. In such circumstances the mortality, like putrefaction, is always increased when the temperature is high; and epidemics of diarrhoea, dysentery, and cholera prevail. Many thousands of the people of England were carried off in the last quarter by these diseases and others of the zymotic class.

The deaths in the quarter were 43,582. If the mortality had not been higher in the towns than in the poor country districts where the air is purer, the deaths in the quarter would not have exceeded 33,000. Within the last three months *ten thousand* lives have been destroyed in a part only of England by causes which there is every reason to believe may be removed.

In the metropolis the deaths at the close of June from diarrhoea, dysentery, and common cholera rose to 40 weekly, and have since increased. Nor is that to be wondered at. Notwithstanding the improvements effected when the cholera was last epidemic; the foul untrapped sewers and the ground areas of the best streets emit noisome smells and volatile poisons, which are as fatal as arsenic to a certain number of persons. London is surrounded, too, by stagnant, putrid ditches, as some cities are by walls. It would be well not to wait carelessly until cholera reaches the country, but to "look before," remove these nuisances, and purify the reeking atmosphere, which gives the disease breath, life, and being. These remarks apply with tenfold force to Liverpool, Sheffield, and the towns of the North, where the epidemics in the last quarter were more fatal than they had ever been before, and diseases were in proportion to the population at least one-third part more numerous than in London. The prevailing epidemics are mentioned in the Registrars' Notes, to which I refer for much useful information.

The mean temperature at Greenwich of the thirteen weeks ending June 27th is $55^{\circ}2$; which is $2^{\circ}3$ above the average of 25 years, and $3^{\circ}3$ above the average of the corresponding quarter of 1845. The temperature is very little above the temperature of the same season in 1844, when the wheat crop was so abundant; $5\frac{1}{2}$ inches of rain have, however, fallen in the present quarter, and the winter of 1846 was of extraordinary mildness, while the winter of 1844 was of more than the average severity. The highest point of the thermometer in the shade at Greenwich was $87^{\circ}0$ on June 20; the lowest $33^{\circ}3$; the extreme range was therefore $53^{\circ}7$. The highest point in the sun was $116^{\circ}5$, the lowest on the grass $21^{\circ}0$; to these extremes, differing $95^{\circ}5$, vegetation was exposed. The temperature of the Thames was $59^{\circ}4$ in the day, $58^{\circ}3$ in the night. The water was on an average $3^{\circ}7$ warmer than the air. The dew point was $48^{\circ}3$. The air wanted $6^{\circ}8$ of saturation, and was much drier than the spring of 1845; but not so dry as the same season of 1844. The sky was more clouded than in 1844; and there was less wind. In the spring quarter of 1844, the mean weekly amount of horizontal movement of the air was 948 miles; in the same quarter of 1846 it was only 655 miles. The barometer was 29.919 inches in 1844, and 29.740 inches in 1846.

Deaths in the Metropolis from all Causes, exclusive of Violent and Sudden Deaths.

Number of Weeks	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	
Spring Quarter ..	1845	884	888	910	878	848	789	808	798	868	818	802	757	756
	1846	969	820	931	832	785	820	781	802	804	812	776	776	817
Mean Temperature	1845	44.6	40.4	45.3	51.2	53.8	44.5	50.6	47.5	53.1	50.7	64.1	62.2	58.3
	1846	46.8	45.5	50.4	45.5	48.4	55.2	51.8	54.2	57.6	64.6	66.4	69.5	61.2

The meteorological changes in different parts of the country are indicated in the table of country observations, with which I have been favoured by the gentlemen whose names are there mentioned.

MORTALITY OF THE COUNTRY.

Quarterly Table of the Mortality in 115 of the Districts of England (including the Principal Towns), showing the Number of Deaths Registered in the Quarters ending June 30th of the Four Years 1843-44-45-46.

Parts of Divisions and Districts.	Popula- tion 1841.	Deaths Registered in the Quarters ending June 30th.				Parts of Divisions and Districts.	Popula- tion 1841.	Deaths Registered in the Quarters ending June 30th.			
		Years.						Years.			
		1843.	1844.	1845.	1846.			1843.	1844.	1845.	1846.
<i>Metropolis*.</i>						<i>North Midland Division.</i>					
West Districts...	301,326	1,805	1,802	1,843	1,694	Leicester	50,932	277	332	432	305
North Districts...	366,303	2,206	2,191	2,130	2,190	Lincoln	36,110	205	180	202	205
Central Districts...	374,759	2,394	2,044	2,056	2,032	Nottingham...	53,080	290	325	323	310
East Districts...	393,247	2,496	2,433	2,389	2,372	Basford	59,634	325	358	330	339
South Districts...	479,469	2,810	3,001	2,849	2,983	Derby	35,015	210	209	206	209
Total †	1,915,104	11,621	11,471	11,267	11,271	Total	234,771	1,316	1,404	1,513	1,368
<i>South Eastern Division.</i>						<i>North Western Division.</i>					
Maidstone	32,310	175	202	170	165	Stockport	85,672	511	418	516	621
Brighton	46,742	292	217	218	302	Macclesfield	56,018	386	336	363	438
Isle of Wight	42,547	176	191	194	174	Great Brough- ton (including Chester)	49,085	291	236	293	312
Portsea Island	53,036	334	363	301	375	Liverpool	223,054	1,914	1,547	1,614	2,098
Winchester	23,044	100	116	140	125	West Derby (adjoining Liverpool)	88,652	558	524	584	828
Windsor	20,502	85	97	98	96	Blackburn	75,091	562	460	526	638
Total	218,181	1,162	1,186	1,121	1,237	Preston	77,189	507	463	481	587
<i>South Midland Division.</i>						Rochdale	60,577	404	407	466	475
St. Albans	17,051	60	67	83	76	Bury	77,496	492	495	436	531
Wycombe	34,150	198	229	192	129	Bolton	97,519	676	616	641	689
Oxford	19,701	85	77	86	111	Wigan	66,032	477	486	355	654
Northampton	28,103	177	224	251	156	Prescott	43,739	248	197	234	284
Bedford	31,767	177	193	180	158	Chorlton	93,736	610	540	647	705
Cambridge	24,453	124	155	147	125	Manchester	192,408	1,447	1,257	1,326	1,611
Total	155,225	821	945	939	755	Salford	70,228	493	417	445	539
<i>Eastern Division.</i>						Ashton	173,964	1,074	992	1,381	1,460
Colchester	17,790	99	105	125	100	Total	1,530,460	10,650	9,391	10,308	12,470
Ipswich	25,254	118	161	178	171	<i>York Division.</i>					
Norwich	61,845	339	343	408	437	Sheffield	85,076	534	464	513	852
Yarmouth	24,031	102	127	191	133	Huddersfield	107,140	779	572	603	731
Total	128,921	658	736	900	841	Halifax	109,175	679	606	626	807
<i>South Western Division.</i>						Bradford	132,164	936	962	1,107	1,208
Devizes	22,130	194	118	108	123	Leeds & Hunslet	168,067	1,117	936	1,177	1,087
Dorchester	23,380	105	95	135	108	Hull	41,130	282	229	288	336
Exeter	31,333	142	186	164	181	York	47,779	298	267	297	293
St. Thomas	47,105	185	220	231	195	Total	691,131	4,625	4,036	4,611	5,314
Plymouth	36,527	206	209	225	184	<i>Northern Division</i>					
Redruth	48,062	293	244	211	291	Sunderland	56,226	333	307	303	452
Penzance	50,100	250	221	205	208	Gateshead	38,747	279	216	237	283
Bath	69,232	373	433	416	393	Tynemouth	55,625	308	256	295	423
Total	327,869	1,658	1,726	1,695	1,593	Newcastle-on- Tyne	71,850	541	383	429	537
<i>Western Division.</i>						Carlisle	36,084	195	197	203	241
Bristol	64,298	384	424	419	379	Cockermouth	35,076	190	166	174	218
Clifton	66,233	294	427	375	338	Kendal	34,694	208	187	186	212
Stroud	38,920	188	245	206	182	Total	328,902	2,054	1,712	1,827	2,426
Cheltenham	40,221	197	191	198	177	<i>Welsh Division.</i>					
Hertford	34,427	196	207	168	187	Abercavenny	50,834	312	332	352	358
Shrewsbury	21,529	117	139	118	132	Pontypool	25,037	160	99	150	211
Worcester	27,130	172	129	150	139	Merthyr Tydvil	52,864	264	560	462	438
Kidderminster	29,408	155	169	279	131	Newtown	25,958	140	117	149	132
Dudley	86,028	441	468	551	596	Wrexham	39,542	266	219	214	244
Walsall	54,274	191	174	180	220	Holywell	40,787	205	208	280	220
Wolverhampton	89,722	414	457	541	500	Anglesey	38,105	128	110	191	205
Wolverstan	32,669	219	201	228	243	Total	273,127	1,475	1,645	1,798	1,808
Birmingham	138,187	735	871	859	842	Ditto, exclu- sive of the Metropolis	4,664,589	28,595	27,380	29,462	32,311
Aston	50,928	276	298	291	269	Grand Total	6,579,693	40,216	38,551	40,729	43,582
Coventry	31,028	197	199	187	164						
Total	776,002	4,176	4,599	4,750	4,499						

* Wandsworth District is included in the return for the Metropolis.

† The last quarter in the Metropolis ended June 27th, 1846.

‡ The former District of Leeds is now divided into the districts of *Leeds* and *Hunslet*, both included in the present return.

MORTALITY OF THE METROPOLIS.

A Table of the Mortality in the Metropolis, showing the Number of Deaths from all Causes, in the Quarters ending June of the Four Years, 1843-44-45-46.

CAUSES OF DEATH.	Quarters ending June.				CAUSES OF DEATH.	Quarters ending June.			
	1843.	1844.	1845.	1846.		1843.	1844.	1845.	1846.
ALL CAUSES.....	11,621	11,471	11,267	11,271	III. Cephalitis.....	176	153	144	147
SPECIFIED CAUSES	11,553	11,432	11,231	11,235	Hydrocephalus	485	497	456	443
I. Zymotic (or Epi- demic, Endemic, and Contagious) Diseases.....	2,431	2,451	1,885	1,787	Apoplexy	251	294	252	329
SPORADIC DISEASES.					Paralysis	219	213	191	245
II. Dropsy, Cancer, and other Diseases of uncertain or va- riable Seat	1,224	1,209	1,193	1,166	Convulsions.....	540	614	641	514
III. Diseases of the Brain, Spinal Marrow, Nerves, and Senses	1,861	2,006	1,938	1,987	Tetanus	2	7	7	5
IV. Diseases of the Lungs and of the other Organs of Respiration	3,442	3,229	3,478	3,487	Chorea	2	2	3	1
V. Diseases of the Heart and Blood Vessels	323	378	419	405	Epilepsy.....	52	55	43	90
VI. Diseases of the Sto- mach, Liver, and other Organs of Digestion	835	847	860	1,012	Insanity	11	18	16	29
VII. Diseases of the Kid- neys, &c.....	91	94	125	133	Delirium Tremens..	21	29	23	33
VIII. Childbirth, Diseases of the Uterus, &c.)	116	99	150	158	Disease of Brain, } &c.....	102	124	156	150
IX. Rheumatism, Dis- eases of the Bones, Joints, &c.....	104	82	85	134	IV. Laryngitis.....	11	17	12	28
X. Diseases of the Skin, Cellular Tissue, &c.....	13	12	25	32	Quinsey	27	23	14	16
XI. Old Age.....	839	673	744	491	Bronchitis	190	194	272	510
XII. Violence, Privation, and Intemperance	274	352	329	443	Pleurisy	30	19	28	40
I. Small Pox.....	105	425	246	87	Pneumonia	840	715	869	705
Measles	374	208	322	163	Hydrothorax	56	67	54	47
Scarlatina	325	601	201	177	Asthma	191	161	203	150
Hoop Cough	625	361	463	545	Phthisis or Con- sumption.....	1,884	1,838	1,819	1,850
Croup	89	126	83	67	Disease of Lungs, &c	213	195	207	141
Thrush	47	42	45	40	V. Pericarditis	21	29	29	20
Diarrhoea	50	83	84	153	Aneurism	8	14	11	11
Dysentery	17	15	17	18	Disease of Heart, &c.	294	335	379	374
Cholera	8	9	2	9	Teething	199	165	163	114
Influenza	21	28	11	21	Gastritis.....	169	11	19	20
Ague	6	3	3	8	Enteritis	169	169	143	106
Remittent Fever....	5	4	7	27	Peritonitis.....	21	29	37	54
Typhus	690	455	308	364	Tabs Mesenterica..	104	125	128	202
Erysipelas.....	58	68	80	78	Worms	2	6	4	22
Syphilis	11	19	13	30	Ascites	16	17	14	24
Hydrophobia	1	1	..	..	Ulceration (of In- testines, &c.) ..	20	9	32	40
II. Inflammation	39	7	..	..	Hernia	31	23	25	28
Hæmorrhage	28	42	28	30	Colic or Ileus	24	32	31	39
Dropsy	388	333	329	125	Intussusception...	9	7	11	18
Abscess	16	20	15	16	Stricture	4	3	6	11
Noma .....	..	..	1	2	Hæmatemesis	11	10	11	16
Mortification	53	46	60	34	Disease of Sto- mach, &c.....	60	74	65	82
Purpura	1	3	4	9	Disease of Pancreas	..	1	1	1
Scrofula	35	43	41	77	Hepatitis	22	22	24	48
Cancer	139	170	151	191	Jaundice	27	39	27	30
Tumour	8	7	2	..	Disease of Liver, &c.	116	105	117	154
Gout	16	19	15	16	Disease of Spleen ..	..	..	2	3
Atrophy	102	137	135	235	VII. Nephritis	6	9	4	11
Debility	224	236	242	255	Ischuria .....	..	..	..	2
Malformations	19	22	17	47	Diabetes.....	4	3	7	9
Sudden Deaths	164	124	152	129	Cystitis	3	2	5	11
					Stone	3	5	10	7
					Stricture	13	16	12	8
					Disease of Kidneys, } &c.....	62	59	87	85
					VIII. Childbirth.....	94	67	104	102
					Parametia.....	2	3	1	4
					Ovarian Dropsy ..	5	6	8	15
					Disease of Uterus, } &c.....	15	23	37	37
					IX. Arthritis	1	1	2	2
					Rheumatism	34	27	31	79
					Disease of Joints, } &c.....	69	54	52	53
					X. Carbuncle.....	1	..	3	..
					Phlegmon .....	..	2	2	6
					Ulcer	2	7	4	12
					Fistula	6	1	5	5
					Disease of Skin, &c.	4	2	11	9
					XI. Old Age.....	839	673	744	491
					Intemperance	4	13	15	20
					Privation	4	6	3	6
					Violent Deaths	266	333	311	417
					Causes not specified	68	39	36	36

QUARTERLY METEOROLOGICAL TABLE
Compiled from the Weekly Tables furnished to the Registrar-General by the Astronomer Royal.

1846 Weeks ending		THERMOMETERS.										In the Water of the Thames at Greenwich by the Self-Registering Thermometer and at 9 o'clock.		Difference between the mean temperature of the week, and the mean temperature of the same week on an average of 25 years.		WIND.			The amount of Horizontal movement of the air in each week.		Mean amount of Cloud, 0 to 10.		Rain in inches (7 days).		Deaths at Three Ages, exclusive of violent and sudden Deaths.		
		Mean.		Dew Point.		Self-Registering.																					

* In reading the 20th column, it will be borne in mind that + is read "higher," and — is read "lower," than the average.

+ Mean of twelve weeks.

REVENUE.

An Abstract of the Net Produce of the Revenue of Great Britain in the Years and Quarters ending 5th July, 1845 and 1846; showing the Increase or Decrease thereof.—(Continued from page 189.)

Sources of Revenue.	Years ending 5th July.			
	1845.	1846.	Increase.	Decrease.
	£	£	£	£
Customs.....	19,807,044	17,688,461	....	2,118,583
Excise	12,074,999	12,025,112	....	49,887
Stamps	6,846,883	6,988,940	142,057	....
Taxes	4,228,441	4,229,899	1,458	....
Property Tax	5,261,954	5,183,912	....	78,042
Post Office.....	679,000	794,000	115,000	....
Crown Lands	125,000	100,000	....	25,000
Miscellaneous	658,819	1,384,096	725,277	....
Total Ordinary Revenue	49,682,140	48,394,420	983,792	2,271,512
Imprest and other Moneys .	410,145	215,523	....	194,622
Repayments of Advances....	975,571	1,446,140	470,569	....
Total Income	51,067,856	50,056,083	1,454,361	2,466,134
Deduct Increase.....				1,454,361
Decrease on the Year.....				1,011,773

Sources of Revenue.	Quarters ending 5th July.			
	1845.	1846.	Increase.	Decrease.
	£	£	£	£
Customs	4,499,548	4,523,391	23,843	....
Excise	2,965,684	3,104,711	139,027	....
Stamps	1,837,076	1,730,495	....	106,581
Taxes	2,000,567	2,006,427	5,860	....
Property Tax.....	909,991	1,009,162	99,171	....
Post Office.....	155,000	181,000	26,000	....
Crown Lands.....	30,000	....	....	30,000
Miscellaneous	13,652	458,001	444,349	....
Total Ordinary Revenue	12,411,518	13,013,187	738,250	136,581
Imprest and other Moneys	29,262	73,939	44,677	....
Repayments of Advances	182,354	111,607	....	70,747
Total Income.....	12,623,134	13,198,733	782,927	207,328
Deduct Decrease				207,328
Increase on the Quarter			575,599	

Consolidated Fund Operations.—The total income brought to this account in the quarter ending 5th July, 1846, was 12,211,203*l.*; the total charge upon it was 7,425,651*l.*; leaving a surplus of 5,785,552*l.* The amount of Exchequer Bills issued to meet the charge on the Consolidated Fund for the quarter ending 5th April, 1846, and paid off out of the growing produce of that fund for the quarter ending 5th July, 1846, after deducting 900,000*l.* paid off out of the Sinking Fund, was 1,953,799*l.* The probable amount of Exchequer Bills required to meet the charge on the Consolidated Fund in the quarter ending 5th July, 1846, is stated at 799,344*l.*

CORN.

Average Prices of Corn per Imperial Quarter in England and Wales, with the Rate of Duty on Foreign and Colonial Wheat, during each Week of the Second Quarter of 1846; together with the Average Prices for the whole Quarter.—(Continued from p. 190.)

Returns received at the Corn Office, 1846.	Wheat.		Barley.	Oats.	Rye.	Beans.	Peas.	Date of Certificates of preceding Prices, regulating Duties for the Week ensuing.	Duties on Wheat per Quarter.	
	Weekly Average	Aggregate Average of Six Weeks regulating Duty.	Weekly Average	Weekly Average	Weekly Average	Weekly Average	Weekly Average		From Foreign Countries.	From British Possessions out of Europe.
Weeks ending 1846.	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>		<i>s.</i> <i>d.</i>	<i>s.</i> <i>d.</i>
April 1 .	55 9	54 11	30 7	22 6	33 7	34 10	34 2	April 9	18 0	
11 .	56 0	55 3	30 9	22 9	33 4	35 1	33 8	16	17 0	
18 .	55 10	55 5	30 5	22 9	35 5	34 9	34 5	23	17 0	
25 .	55 6	55 7	30 1	23 4	33 7	34 10	33 10	30	17 0	
May 2 .	56 5	55 10	29 8	23 7	32 5	34 11	33 10	May 7	17 0	
9 .	56 8	56 0	29 7	23 9	33 5	35 8	34 7	14	16 0	
16 .	57 0	56 3	29 4	24 1	33 5	35 11	34 11	21	16 0	
23 .	55 5	56 2	28 10	23 8	34 6	36 0	34 6	28	16 0	
30 .	53 4	55 9	28 4	23 9	32 4	35 10	34 2	June 4	17 0	
June 6 .	52 10	55 3	27 8	23 4	32 10	35 10	34 10	11	17 0	
13 .	52 0	54 7	27 1	23 8	32 4	35 8	34 9	18	18 0	
20 .	51 5	53 8	27 3	23 3	33 4	36 4	32 6	25	18 0	
27 .	52 2	52 10	27 4	23 6	32 7	37 6	35 0	July 2	5 0	
Average of the Quarter	54 7		28 11	23 1	33 3	35 8	34 2	..		

Foreign and Colonial Wheat and Wheat-Flour imported in each of the Months ending 5th April, 5th May, and 5th June, 1846; the Quantities upon which Duties have been paid for Home Consumption during the same Months; and the Quantities remaining in Bond at the close of them.—(Continued from p. 190.)

WHEAT.

Months ending.	Imported.			Paid Duty.			In Bond at the Month's end.		
	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.
1846	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.
5th April	117,172	619	117,791	882	3,311	4,223	1,226,903	2,872	1,229,775
5th May	138,351	343	138,694	4,908	1,572	6,480	1,338,311	1,641	1,339,952
5th June	178,801	1,219	180,020	1,837	1,463	3,300	1,476,521	1,401	1,477,922

WHEAT-FLOUR.

Months ending.	Imported.			Paid Duty.			In Bond at the Month's end.		
	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.
1846	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.
5th April	121,177	5,517	126,694	1,326	27,691	29,017	898,545	13,258	911,773
5th May	211,731	1,400	216,131	1,388	30,124	31,812	1,105,064	14,398	1,119,462
5th June	190,720	13,528	204,248	1,112	20,354	21,466	1,291,111	7,572	1,298,683

CURRENCY.

BANK OF ENGLAND.

An Account, pursuant to the Act of the 7th and 8th Victoria, c. 32, for the Weeks ending on Saturday, the 25th April, the 23rd May, and 20th June, 1846.—(Continued from p. 191.)

ISSUE DEPARTMENT.

	Weeks ending,		
	25th April, 1846.	23rd May, 1846.	20th June, 1846.
	£	£	£
Notes issued	27,049,510	27,706,865	29,005,160
Government Debt	11,015,100	11,015,100	11,015,100
Other Securities	2,984,900	2,984,900	2,984,900
Gold Coin and Bullion	11,256,880	11,782,453	12,592,103
Silver Bullion	1,792,630	1,924,112	2,412,757
Total	27,049,510	27,706,865	29,005,160

BANKING DEPARTMENT.

Proprietors' Capital	14,553,000	14,553,000	14,553,000
Rest	3,361,576	3,426,036	3,396,774
Public Deposits	2,698,953	4,809,183	7,313,539
Other Deposits	16,978,110	15,947,268	15,293,909
Seven Day and other Bills	962,415	970,161	832,981
Total	38,557,054	39,705,948	41,390,203
Government Securities, including Dead Weight Annuities	13,528,065	12,988,065	13,090,946
Other Securities	17,881,532	18,236,480	17,981,603
Notes	6,488,140	7,774,925	9,631,235
Gold and Silver Coin	656,317	706,478	683,419
Total	38,557,054	39,705,948	41,390,203

COUNTRY BANKS.

Average Aggregate Amount of Promissory Notes of Country Banks, which have been in Circulation in the United Kingdom, distinguishing the several Banks, or Classes of Banks, by which issued in each part of the Kingdom, during the weeks ending 25th April, 23rd May, and 20th June, 1846.—(Continued from p. 191.)

Banks.	25th April, 1846.	23rd May, 1846.	20th June, 1846.
England—Private Banks	4,712,396	4,656,134	4,157,140
Joint Stock Banks	3,301,967	3,261,189	3,128,150
Scotland—Chartered, Private, and Joint Stock Banks	3,096,317	3,101,782	3,508,655
Ireland—Bank of Ireland	1,355,025	1,259,400	4,119,850
Private and Joint Stock Banks	3,217,298	3,062,380	2,852,176
Total	18,713,003	18,744,985	18,066,011

BANKRUPTCY.

An Analysis of the Bankruptcies in England and Wales, gazetted in each Month of the Quarter ending June 30, 1846; showing the Counties and Branches of Industry in which they have occurred.—(Continued from p. 192.)

COUNTIES.	April.	May.	June.	TRADES.	April.	May.	June.
Metropolis	31	57	33	<i>Agriculture and connected Trades.</i>			
Bedford				Farmers	1		
Berks	1		4	Agricultural Implement }			
Bucks.....			2	Makers, &c.			
Cambridge		1		Corn Factors		1	3
Cheshire	2		2	Millers and Malsters			2
Cornwall	1	1	2	Hop Merchants		2	
Cumberland	1			Brewers	6	5	1
Derby				Horse and Cattle Dealers, and }	1	1	
Devon		3	4	Woolstaplers			
Dorset	1	1		<i>Mining and connected Trades.</i>			
Durham	3	1	1	Mining Firms			
Essex.....	3	2	1	Blasting Works			
Gloucester.....	1	6	3				
Hants.....	1		2	<i>Manufactures.</i>			
Hereford				Woollen Manufacturers	8	1	3
Hertford	4			Cotton „		1	1
Huntingdon				Linen „	1		
Kent	4		2	Silk „	3		
Lancashire.....	27	24	27	Printers and Dyers			2
Leicester				Lace Manufacturers			1
Lincoln			4	Hosiery „	1		
Middlesex (exclusive } of the Metropolis) }	4	4	4	Hardware „	1		1
Monmouth.....		1	2	Earthenware „			
Norfolk	1	2	1	Glass „	1	1	
Northampton		1	1	Paper „	1		1
Northumberland	2	1	1	Builders	4	7	4
Nottingham	2	4	1	Miscellaneous Manufacturers....	14	15	12
Oxford				<i>Commerce.</i>			
Rutland				Bankers and Merchants	11	7	4
Salop	1	1	1	Shipowners, Warehousemen, }			
Somerset (including } Bristol) }	3	5	5	Brokers, and Wholesale }	10	26	18
Stafford	6	3	1	Dealers generally			
Suffolk	2	1		<i>Retail and Handicraft Trades.</i>			
Surrey (exclusive of } the Metropolis) }	2	3	2	Bakers	2	2	3
Sussex		1	1	Butchers		2	
Warwick	1	2	3	Corn and Hay Dealers			
Westmoreland				Innkeepers and Victuallers	8	7	7
Wilts		1		Wine and Spirit Merchants	1	3	4
Worcester	1	3		Dealers in Grocery, Drugs, }	14	18	18
York (East Riding)	2	2	3	and Spices			
„ (North Riding)		4	1	Makers of, and Dealers in, }	6	10	5
„ (West Riding)	10	13	12	Clothing			
Wales	2	3	2	Makers of, and Dealers in, }	4	2	1
				Furniture			
				Coach Builders	1	1	2
				Miscellaneous	20	39	35
Total	119	151	128	Total	119	151	128

QUARTERLY JOURNAL

OF THE

STATISTICAL SOCIETY OF LONDON.

DECEMBER, 1846.

Statistical Account of the Constitution and Operation of the Criminal Courts of the Metropolis. By JOSEPH FLETCHER, Esq., Barrister at Law, Honorary Secretary.

[Read before the Statistical Society of London, 20th April, 1846.]

THE most ancient offices, purely of police, now existing in the metropolis, are undoubtedly those of the coroner of the city, and the coroners of the several counties into which the metropolis and its suburbs extend. The coroner for the city receives his appointment from the Common Council, and is sworn in by the Court of Aldermen on his first election. He is generally an attorney; and latterly has been also clerk to the sitting magistrates at Guildhall. He is coroner for both the city and Southwark.

Some inhabitants of Southwark, at the time of a recent vacancy, petitioned the Common Council that a separate coroner might be appointed for Southwark; the petition was referred to a committee, but not complied with. From another quarter there was a petition that the person to be appointed might be a medical man; and the opponent of the present officer was a physician, who had published some discussions on Forensic Medicine, and who was afterwards professor of that science at University College.

The Common Council have been accustomed to appoint the city solicitor to be deputy-coroner, in the absence or default of the principal; but the legal effect of this is, to say the least, subject to very great doubts.

The coroner executes the usual functions of a coroner in the city of London, and throughout the municipal borough of Southwark, including the Temple, Whitefriars, and both the St. Bartholomews, but not the Clink or Ely Place. He does not, however, in Southwark, execute writs in which the sheriff of the county is interested. If a cause occurred, in which the bailiff of Southwark was interested, the writ would be executed by the coroner. As coroner, he has to attend the Old Bailey Sessions and the Surrey Assizes.

The river Thames is within the coroner's jurisdiction on the London and Southwark sides of the middle of the stream, *so far respectively as they are opposite to the territory of the city of London and the borough of Southwark*.*

His fees and allowances, in 1833, amounted to 258*l.* 13*s.*, of which

* Report of the Corporation Commissioners, pp. 15, 88.

all but 7*s.* was derived from the city's cash*. In 1842, however, the total expenses of this office drew the sum of 92*l.* 2*s.* 8*d.* from the city's cash, in great part owing to the Corporation being called upon to reimburse the coroner in the expenses (amounting to 52*l.* 5*s.* 8*d.*) incurred by him under 1 Vic. c. 68; his own fees amounting in the year ending 29th September, 1842, to only 39*l.* 17*s.* The increased charge of this office has indeed emboldened the Corporation to talk of levying a county rate upon the city to meet it!

City Police Courts.

The aldermen, moulded into modern justices of the peace, next prefer their claim to be regarded as the police-magistrates of the city, which, at least in theory, they actually are. The Recorder, though likewise a justice of the peace, is fully occupied with his judicial functions. The aldermen all act as police-magistrates, but the one who is, for the time being, Lord Mayor, alone sits daily. His duties as a magistrate of police are by far the most onerous of all which he has to discharge, though by no means the most expensive.

"The whole of the city is divided into two parts, by a line passing nearly north and south, through Queen Street and King Street. All cases requiring the interference of a justice, which occur to the eastward of this line, are brought before the Lord Mayor, who sits for the purpose daily (with the exception of some occasional relief by other aldermen) at the Justice Room in the Mansion House. If a second magistrate be required from the nature of the business, he must be sent for: this can generally be done without much delay; but it seems to us that an arrangement might be made securing regular attendance in such cases. With respect to such cases as require the presence of two magistrates, the sitting alderman at Guildhall is requested to attend at the Mansion House, twice in the week, to assist the Lord Mayor in disposing of them. The cases to the westward, which we believe to be more numerous than the others, are referred to the sitting aldermen at Guildhall. Sometimes, when the Lord Mayor is prevented by other public business from attending at the Justice Room in the Mansion House, cases are transferred from thence to Guildhall, and heard by the magistrate sitting there. A considerable part of the duty connected with this department arises from private applications, which are continually made to the Lord Mayor, to act as arbitrator and adviser. These applications, though they do not fall within the province of the Mayor's legal authority, are very common, and occupy a part of his time which has been estimated at from half an hour to an hour every day. There appears to have existed anciently something in the nature of a jurisdiction of reconciliation in the city, in which the last-mentioned practice probably originated. Such cases are usually heard before the daily sittings in the Justice Room, which commence at noon, and last about three hours†."

* By stat. 43 Eliz. c. 2, § 8, the alderman of every ward may, in his ward, transact such business as requires two magistrates in other

* Report of the Revenue Committee of the Common Council in 1836; Returns of Officers, Nos. 22 and 77.

† Report of the Corporation Commissioners, p. 77.

cases. This is not much acted upon. The functions of the aldermen, in their several wards, embrace a general superintendence of the police and internal regulations of the ward, and the duty of presiding at the Wardmotes. All this class of duties, however, except the presiding on St. Thomas's-day at the Wardmote, may be executed by the deputy, and is so in the greater number of cases. But the practice of the different wards is various*."

The labours of the aldermen as sitting-magistrates are nearly confined to the attendance at the Guildhall, in rotation. Two are in attendance every Saturday; and under the recent statute for the regulation of the police courts of the metropolis, (2 & 3 Vic. c. 84,) any two aldermen in London are invested, in addition to their ancient authority, with all the powers given to each of the police-magistrates without the limits of the city.

The mayor, and all aldermen who have passed the chair, are justices of Southwark, by the charter of Edward VI. This containing, however, no *non intromittant* clause, the county magistrates of Surrey have concurrent jurisdiction. Indeed, until 1814, the whole of the business was transacted by the county justices. This occasioned repeated petitions to the Common Council, and a Committee of that body having presented a report in 1814, an arrangement was made by which two of the qualified aldermen were made acting magistrates for Southwark, under the name of Justices of the Bridge Ward. Their appointment was in form merely a request to act, made by the Court of Aldermen; and they received 400*l.* per annum each, in consideration of which they alternately attended for a week together, on every day in the week, at the Town Hall in Southwark. The business ordinarily lasted three hours; and latterly there was one day in every week upon which they arranged to be both in attendance, for the transaction of business requiring the presence of two magistrates, as now at the Guildhall on Saturdays.

After the institution of the new police, however, and the passing of the recent statutes which regulate the police courts of the metropolis, it was found that the aldermen acting at the Town Hall in Southwark had no right to act in the case of summary convictions, under 2 & 3 Vic., c. 47, § 76; and that (inasmuch as all summonses and warrants to be issued in any criminal proceedings in the metropolitan police district, which has included Southwark from the first, must be executed by the constables of the metropolitan police force) their powers to act effectively as magistrates out of sessions, in criminal proceedings, was virtually taken away, although there still remained a right to act as justices of the peace in sessions, in cases respecting the poor laws, or in civil matters†.

Under these circumstances, as it appeared that the attendance of a magistrate at the Town Hall in Southwark could be discontinued without prejudice to the rights and privileges which the Corporation enjoy under their various charters, it was determined forthwith to abolish the office of Justices of the Bridge Ward, and close the police court at the Town Hall. Southwark is now, therefore, as exclusively

* Report of the Corporation Commissioners, p. 77.

† Opinions of Attorney and Solicitor-General, the City Law Officers, and Sir William Follett, Minutes of Common Council, p. 179.

under the charge of the metropolitan police-magistrates (being included within the Union Hall districts), as it is exclusively under the charge of the Metropolitan Commissioners for the administrative purposes of police.

Attached to the justice-room at the Mansion House, and to the justice-room at the Guildhall, are a clerk and assistant-clerk, appointed during pleasure by the Court of Aldermen. The clerk of each justice-room executes the ordinary functions of a magistrate's clerk, except that he leaves parish business and a few other duties, such as the taking of recognizances to keep the peace, and the making out of commitments on summary conviction, to his assistant. In attendance on the salaried justices in Southwark, there was also a paid clerk,—so long as their jurisdiction was exercised,—disposing of doubtful cases by a summary conviction, and sending only those of certain guilt for the larger penalties of the higher court. The misgiving of the Common Council as to the character of police justice in the city, is shown by their recommendation to the Government, on occasion of the inquiries of the Corporation Commissioners, “that the aldermen should not be justices until they have served the office of sheriff. Some further insight into the character of the city police courts will be derived from comparison with those of the rest of the metropolis.

The amount of fees, fines, and penalties levied and received in 1835, at the Mansion House was 449*l.* 5*s.* 4*d.*, and at the Guildhall, and in the Police Committee of Aldermen, 486*l.* 10*s.* 2*d.*, of which sums the amounts received in fees, 409*l.* 15*s.* 4*d.*, and 222*l.* 7*s.* 8*d.* were paid into the city's cash, the fines being applied as directed by the Acts of Parliament under which they were levied, with the exception of 39*l.* 19*s.* 6*d.* to a police relief fund†.

The total charged in the City accounts for 1842, under the head of Magistracy and Police, amounts to 17,898*l.* 6*s.* 5*d.*, but of this sum 10,047*l.* 18*s.* was expended on the police, and 1,326*l.* 5*s.* 6*d.* is the charge for marshals and marshalmen; the remainder, therefore, 6,514*l.* 2*s.* 11*d.* is the actual charge for the justice-rooms at the Mansion House and Guildhall, which includes 1,416*l.* 11*s.* 3*d.* paid to the City Solicitor, on account of business under the directions of the Court of Aldermen, in respect of magistracy and police, and 2,642*l.* 0*s.* 6*d.* to the churchwardens and overseers of the several parishes in the City of London, for expenses in removing Scotch and Irish paupers, under 3rd and 4th William IV., c. 40, per order of Sessions.

Metropolitan Police Courts.

In its magistracy, as in its police, the city was greatly in advance of the rest of the metropolis until a very recent period. The charter of the 23rd of Henry VI. and 20th of Henry VII., give power to the mayor to name to the chancellor two aldermen to be justices of peace, one for Southwark and the other for Middlesex. As late as 1678 he seems to have presented justices for Middlesex, Surrey, Kent, Essex, and the Liberty of Westminster. This was apparently the last in-

* Resolutions of the 16th of June, 1836, No. 13.

† Parliamentary Paper, Sess. 1836, No. 323.

stance of the exertion of this privilege on the part of the mayor*. Beyond the limits of the City and the Borough there were, therefore, in the metropolis, until near the close of the last century, no acting magistrates but those named in the ordinary commissions of the several contiguous counties, of the narrow Liberty of the Tower, and of the City and Liberties of Westminster, in which latter, however, the county magistrates of Middlesex were not excluded from exercising a concurrent jurisdiction. In the days of trading justices and blood-money thief-takers, the city must, therefore, have presented a most favourable contrast to the rest of the metropolis. But the disorders of the metropolis having become such as the Government could no longer permit, limited boards of stipendiary magistrates were created, possessing a jurisdiction concurrent with that of the magistrates of Westminster, of the Tower, and of the county magistrates in Middlesex, Essex, Surrey, and Kent. That of Bow-street was first established; seven others in 1792, and the Thames Police Office in 1800. Two others in the eastern and in the western suburbs of the metropolis have recently been added. A succession of statutes have been passed for their regulation; and those by which they are at present governed are the 2nd and 3rd Vict., c. 71, and 3rd and 4th Vict., c. 84.

By these statutes Her Majesty in Council is empowered, from time to time, to extend and alter the districts of the police courts of the metropolis, so that they be confined within the limits of the metropolitan police, and to appoint any number not exceeding twenty-seven magistrates, who must be barristers of seven years' standing, or of four years' standing above, and three under the bar, as special pleaders. The Secretary of State for the Home Department is to appoint the requisite clerks, ushers, door-keepers, and messengers; and the receiver of the metropolitan police is to act as receiver for these courts. The salary of the magistrates is not to exceed 1,200*l.*, that of the chief clerks 500*l.*, or that of the second clerk of each court 300*l.*; the expenses of all the establishments being defrayed out of the Consolidated Fund. The magistrates are to attend from ten in the morning until five in the afternoon; and one of them may perform any act directed to be done by more than one justice, except at petty sessions. The magistrates are to meet quarterly, to report to the Secretary of State, who may make rules for conducting the business of the several courts. Process in respect of any matters arising within the metropolitan police district need not be endorsed. Persons not appearing on summons may be brought up by warrant, or warrant may be first issued. The magistrates may enforce the attendance of witnesses. Extensive powers are given in searching for and restoring stolen goods, and the proceeds of those unclaimed are to go to the receiver. The magistrates may award costs on hearing charges, and order amends for frivolous informations. They may also reduce the share of penalties to informers, and mitigate them to any extent, except when they are imposed by revenue laws, where the concurrence of the Commissioners of Customs, Excise, or Stamps is required. Enlarged powers are given to remand prisoners, or enlarge them on recognizance. Disputes about wages for labour done by bargemen, lightermen, watermen, ballastmen, (except Trinity ballastmen,) coal-whippers, coal-porters

* Report of Corporation Commissioners, p. 77.

sailors, lumpers, riggers, shipwrights, caulkers, or other labourers who work for hire on the Thames or its shores and their employers, may be determined by the police-magistrates, provided the sum in question does not exceed 5*l.* Power is also given to order compensation for wilful damage by tenants; to deal summarily with cases of oppressive distresses; to order the delivery of goods unlawfully detained from their owners; and to order the cleansing of any house in a dangerously filthy state. No other justice than a police-magistrate is to take fees within the police district, under a penalty of 100*l.*, and the fees taken by the police-magistrates on process are fixed. Proceedings on information are regulated, and the fees, with the produce of certain penalties and forfeitures, are to be paid quarterly by each court to the receiver. An appeal to the quarter sessions is given in all cases where a fine above 3*l.*, or imprisonment for more than one month, is awarded. Any two justices within the city of London, or any two justices in petty sessions within the metropolitan police district, but without the limits assigned to the metropolitan police courts, may act with the authority of a police-magistrate under these statutes. An appeal is given to the police-magistrates from proceedings of lect courts, concerning weights and measures. The 2nd and 3rd Viet., c. 71, is to be construed with the previous Police Act of the same year, c. 47.

Under these statutes the judicial police establishment of the metropolis (exclusive of those of the city of London) consists of the following courts:—

Bow Street, Covent Garden	Lambeth Street, Whitechapel
Queen Square, Westminster	Thames Police Court, Arthur Square,
Great Marlborough Street, Westminster	Stepney
High Street, Marylebone	Union Street, Southwark
Clerkenwell, King's Cross	Greenwich and Woolwich, jointly.
Worship Street, Shoreditch	Hammersmith and Wandsworth, jointly.

The two latter are recently instituted. Bow Street is the head court, and is presided over by the chief police magistrate, who sits at that court in addition to two other magistrates.

The regular establishment of the police courts consists of

2 Magistrates who sit on alternate days	2 Ushers
2 Clerks	1 Door and Office-keeper, and
	1 Gaoler

To the Greenwich and Woolwich police courts one establishment only is appointed; the magistrate sitting in the forenoon at Greenwich, and after two o'clock at Woolwich. The same arrangement is made with respect to Hammersmith and Wandsworth.

The expenses of these establishments, in the year 1842, including all charges connected with the buildings, repairs, furniture, &c., and above 4,000*l.* for the superannuation of magistrates and officers, amounted to 45,500*l.*; but the amount of fines and fees received exceeded 9,800*l.*, and was paid in diminution of the cost to the public.

The limits of the several districts attached to each police office are fixed by an Order in Council of November 10, 1840, amended by one of February 5, 1841, and by another of December 10, 1842; all pub-

lished in the *London Gazette*. They are fully described in a preceding volume of the *Statistical Journal*. (vol. vii. p. 124.)

The cases for summary conviction heard at the same offices in 1838 amounted to 44,439, of which 5,739 were heard at Bow Street, 5,749 at Queen Square, 6,124 at Marlborough Street, 4,556 at Marylebone, 4,097 at Hatton Garden, 5,658 at Worship Street, 2,898 at Whitechapel, 6,945 at Union Hall, and 2,673 at the Thames Police Office. These cases involved 48,742 individuals. Of the 11,761 committed, of that number 6,181 were to the House of Correction in Cold Bath Fields, 1,674 to that at Brixton, 3,372 to the Westminster Bridewell, and 534 to other prisons*.

The number of cases of a character demanding reference to a jury, heard at the nine metropolitan police courts in 1838, before the extension of the police district, was 19,801, involving 23,060 persons; of which number 14,820 were discharged, 1,843 bailed, 134 bailed for trial, 3,312 committed for want of sureties, and 2,951 committed for trial; 2,077 of the committals being to Newgate, 2,120 to the New Prison at Clerkenwell, 1,074 to the Westminster Bridewell, 987 to Horsemonger Lane gaol, and 5 to other prisons. Of the above 19,801 cases, 2,021 were heard at Bow Street, 1,787 at Queen Square, 1,703 at Marlborough Street, 2,824 at Marylebone, 2,772 at Hatton Garden, 2,442 at Worship Street, 2,380 at Whitechapel, 3,057 at Union Hall, and 815 at the Thames Police Office.

It is difficult to find any means of comparison between the metropolitan police courts and those of the city, so silent are the latter. In 1835 a return was made to the House of Commons of the amount of fees and penalties levied and received in each of the metropolitan police courts; and compared with a like statement concerning the city courts, already given, this will afford some test of the comparative amount of business transacted in them.

	£	s.	d.
Bow Street.....	1,528	16	4
Marlborough Street	1,040	3	0
Queen Square	1,007	12	11
Hatton Garden	1,112	3	9
Worship Street.....	804	6	11
Whitechapel	799	4	0
Marylebone	1,025	7	1
Union Hall	1,312	17	2
Thames Police	753	6	10
Total Amount in 1835.....	£9,383	18	0

Of the above sum 1,006*l.* 13*s.* 6*d.*, being the amount levied for assaults on police-constables, was paid to the Receiver of the Metropolitan Police, who gave credit for it in his Police Accounts; and the remainder was paid to the Receiver of the Nine Police Offices; and applied by him in the payment of the expenses of the several offices.

It would thus appear that the cumbrous machinery of the two city offices is all employed to perform less than the average business of one of the other metropolitan police offices. As for a comparison by population, this is scarcely possible; for not only does the police business

* See also post. p. 303.

vary much with the character and locality of the population, but the difficulty of finding county magistrates at home and at leisure compels the police to bring before the neighbouring police-magistrates the business of all the parishes lying next beyond the proper outer boundary of their jurisdiction, as above defined, which is nearly coincident with that of the original police district of the metropolis; offenders in the more remote circuit of the new metropolitan police district being alone taken before the county magistrates.

Neither can a comparison of expense be well instituted; but it is quite obvious that the eleven establishments without the city, costing little more than 3,000*l.* per annum each (net), are infinitely more economical than the two police courts of the city combined, to obtain the actual cost of which we have to add, to the preceding statements, rents and office-expenses defrayed from other sources, and a certain share of the emoluments of the mayoralty and the advantages derivable from the aldermanship.

Position of the Police Courts and Recent Improvements in them.

Our estimate of the nature of metropolitan police justice will be rendered more correct by referring to the admirable description of the position and duties of a police magistrate given by Mr. Murray, late one of the magistrates of Union Hall, to the Commons' Police Committee of 1834.

"It is obvious," he observes, "that these district courts, sitting daily, open to all classes of a thickly peopled metropolis, and entertaining every possible case incident to vice, misery, and passion, are calculated to exert a considerable influence on public conduct, differing in its extent and effects in a great degree according to the estimation in which these tribunals are held. It is equally clear that they are not at present as highly estimated as is consistent with the benefits they may be capable of conferring. Casual or reluctant visitors are not judges of the nature and amount of a police magistrate's business, of the many cases of deep interest which crowd upon his attention, the constant demands upon his experience, the frequent trials of his patience, and the repeated calls upon his knowledge of human nature. The value of his office does not consist more in the strict legal performance of his judicial and administrative duties than in the exercise of a sound discretion, and in the considerate application of the principles and feelings of humanity, as an adviser, an arbitrator, and a mediator. The hearing at a police office may in some instances, especially to the young and misguided, be the opening of new views of life and new rules of conduct. There is scarcely a conceivable case arising, particularly among the lower orders, which may not immediately or indirectly come under the notice of the police offices. It is most important, therefore, that every means should be adopted for upholding their reputation, and so extending and increasing their moral influence*."

It was resolved by the Commons' Committee of 1838 "that it would tend to a more satisfactory administration of justice if police-magistrates were called upon to execute such duties only as are of a judicial character, and if all duties of an executive nature were com-

* Report of Committee of 1834 on the Police of the Metropolis, p. 18.

mitted to the charge of the metropolitan police force." And we have seen that in the recent enactments this recommendation has been carried out to the fullest extent; in fact, to an extent in appearance much greater than the actual functions of the magistracy and the police will ever really permit*. It will be observed, however, that two city magistrates are required to exercise the powers given to any one metropolitan police-magistrate by the recent statutes; a provision which (just the reverse of that ancient privilege embodied in the statute of the 43rd Elizabeth, c. 2, by which every alderman in his ward may exercise singly the powers everywhere else entrusted only to two magistrates,) marks strongly the decline of the city magistracy in general estimation.

The like favour has not, however, been shown to the recommendations to give "power to police-justices to hear and determine summarily all cases of simple larceny and stealing from the person without violence, when the value of the property does not exceed 40s., subject to an appeal of the same description as that provided in the 7th and 8th George IV., c. 29, 30."

And there is another important recommendation of the Committee, which the provision for settling disputes about wages of workmen on the river does but approach, apparently in deference to the violence which these rude men might otherwise be tempted to exert; while the more peaceably disposed are still left without civil redress. It is the same in substance with a proposition of Mr. Fielding before the Police Committee of 1816, and the grounds of it were admirably explained by Mr. Murray, late one of the magistrates of Union Hall, whose evidence before the Committee of 1834 has already been quoted.

"We are continually called upon," states this gentleman, "to assist poor persons in the recovery of property of trifling amount, alleged to be unlawfully withheld from them. In these cases, unless any offence is incidentally involved, we have no legal right to interfere; but we find it extremely useful to affect a jurisdiction which we do not really possess. We grant a summons to show cause why the goods are detained. If the party summoned refuses to attend, we can go no further; but in many cases the party attends, and then by the exercise of a little management we are generally able to obtain restitution, or to effect an adjustment. These applications are made by servants whose boxes are withheld; by persons who, on going into the country for work, have deposited their little furniture with supposed friends, who set them at defiance when they come back and reclaim their goods; and they are also frequently made by young girls against the keepers of brothels, who detain their clothes for some extortionate charge. All these cases are fruitful sources of angry quarrel, and we find in practice that many of the assaults and other breaches of the peace brought before us arise out of them. If the principle were adopted of giving us a legal jurisdiction in these matters, it might also be very usefully extended to disputes about rent, claims for wages by household servants, and other pecuniary demands below a certain value†."

"From the number of such applications made to himself, Mr. Traill,"

* See Evidence of J. M. Phillips, Esq., Under Secretary of State, before the Committee of 1837, pp. 1—11.

† Report of the Police Committee of 1834, pp. 18, 19.

states the Report of the Committee of 1838, "calculates a total at the mere police offices of 12,000 to 14,000 in the year, not taking into account such complaints as are not made to magistrates, from its being generally known that they have no jurisdiction. Hence he infers the 'great amount of relief which might be afforded in matters too urgent to brook delay, and of too little value to admit of expense, yet sufficiently serious to disturb the public peace, or the happiness of individuals*:' and he observes that 'the police office establishment, if put on a more judicial footing, seems to afford the opportunity of introducing gradually and securely that which has long been required in this country, viz., a system of poor man's justice†.' Upon this subject Mr. Wedgwood also observes: 'We very frequently witness the departure of applicants from the office under a burning sense of injustice, on learning that there was no redress accessible to them. Nothing, in my opinion, would tend more than such a jurisdiction, to encourage among the common people a habit of looking to the law for protection; a consideration which, I think, can hardly be over-valued‡.' Another magistrate, of long standing and experience at the bar, Mr. Jeremy, states also, that 'every day's experience in a police office shows, that the lower classes of the community are at present wholly remediless in a great variety of points regarding their personal and civil rights, and for the protection of which every good Government must be anxious to provide§.'

"Your Committee consider this to be a subject which calls for the immediate and most anxious attention of the Legislature. The statute book is crowded with provisions and penalties for the protection of public and private rights, but they are most expensive and distant, and they involve in their pursuit both a sacrifice of time and money. For this reason the wrongs and injuries of the poor man are too frequently unredressed, and the law being little known to him as the guardian of his property, or the protector of his rights, it becomes associated in his mind with impressions of oppression or revenge. Your Committee is of opinion, that some inexpensive and prompt remedy for the various wrongs and grievances of humble life is closely allied with the happiness and morality of this great and important class of society, and that the evils of the present state of the law in this respect are incalculable. The affections of a large portion of the community are, from the want of it, alienated from the institutions of their country; their minds are filled with dissatisfaction and discontent with their condition, which subjects them to the injustice of submitting to injury because no remedy is within the reach of their resources; and they are hence often tempted to take the law into their own hands, by which they become involved in penal consequences or litigation, to the ruin of their property or their prospects. They would particularly point attention to the clauses which have been suggested by the magistrates, with a view to provide the species of remedy required in these and similar subjects of complaint: at the same time it may be deserving of consideration, whether the police office establishments are not capable of being made still more extensively useful, by conferring upon the magistrates the power of deciding in all questions of civil jurisdiction to the value of 5*l.*, thereby super-

* See Appendix. Evid. 1838.

† Rep. 1837. App. 5. p. 186.

‡ App. 5, p. 186. App. 2, p. 198.

§ App. 1. p. 197, Evid. 1838.

seding the necessity of establishing local courts within the limits of the police office district, so far at least as regard the jurisdiction of such courts in matters not intended to be referred to the determination of a jury. Here are courts already conveniently distributed and furnished with all the requisites for the exercise of this jurisdiction, in the daily attendance of magistrates of superior legal attainments, and of clerks accustomed to the transaction of such business. Your Committee offer this suggestion with a view to prevent an unnecessary multiplication of petty tribunals, and an unprofitable increase of expense. Should it, however, be found inexpedient to carry the metropolitan magistrates' jurisdiction in civil matters to the extent above intimated, your Committee are agreed in opinion,—

“That it would place justice more within the reach of all classes of the population, were police justices enabled to hear and determine such questions of a civil nature, as form the most usual subject of complaint amongst the more numerous classes of the population, and for which they are deprived of redress by reason of the expense and time now requisite before the existing tribunals*.”

Central Criminal Court.

In England generally there is next above the police court or petty sessions of the local magistracy, the general or quarter sessions of the peace, held by the magistrates of the whole county or borough, and finally the court of assize and gaol delivery, before the king's justices. The like organization was used in disposing of cases for trial in the metropolis until 1834, when the Old Bailey Sessions, forming the court of gaol delivery for the city of London and county of Middlesex, was converted, by an augmentation of its judicial establishment, an increase in the number of its sittings, and an extension of its jurisdiction, into a *Central Criminal Court* for the whole of the metropolis and its neighbourhood, in whatever county included. Such are the advantages of this court, which disposes equally of the most trifling and of the most serious cases committed for trial, that it has absorbed a great portion of the business which formerly went to the sessions; and it was even debated in the police-committee of 1838, whether the criminal justice of the metropolis would not be better administered if the courts of session were altogether abolished, and their functions divided between the magistrates of police and the Central Criminal Court. This will appear the less surprising on comparing the subsequent statements of the numbers sent to trial from the whole police district (a number which does not include any prisoners from the city) with the following details of the number tried in the same year at the Central Criminal Court:—

	1841.	1842.		1841.	1842.
January.....	200	232	August	461	455
February	255	338	September....	246	259
March	256	345	October.....	343	359
April	248	358	November....	367	354
May	302	406	December	146	174
June	347	381			
July	186	175			
				3,157	3,836†

* Sixth Recommendation.

† Seventh Report of the Inspectors of Prisons, Home District, p. 185.

Indeed the judicial labours of the ordinary sessions of the peace, as well as of an assize and gaol delivery, are now wholly performed for the metropolis by the Central Criminal Court, excepting only what little yet remains to be discharged by the Middlesex Sessions at Clerkenwell, and the Westminster Sessions, held at the Sessions House in that city. The number tried in these courts is, in some degree, marked by the number committed for trial to their respective prisons, and not transferred for trial elsewhere; this amounted, in the year ended at Michaelmas, 1841, to 382 to the New Prison at Clerkenwell, and 180 to the Bridewell in Tothill Fields, being a total of only 562.

The "Central Criminal Court," as the Old Bailey Sessions are designated by the Act of 1834, for the extension of their powers, is a corporation court, in as far as the Commissions of *Oyer* and *Terminer*, under which it is held, embrace the corporation magistrates, and without the presence of some one of the aldermen it cannot, in obedience with the ancient custom at the sessions, exercise any of its functions; for the aldermen, in like manner as, under the prescriptive Anglo-Saxon constitution of the city, they appear to have been assessors to the portreeve, or mayor, and the bishop, in the folkmote, or portmote, so when the system of justices of the peace, commissioned by the Crown, gradually superseded in the country at large that of the old elective common-law officers, they were admitted by successive charters into the new commissions of the peace, bringing with them some powers of their prescriptive office of aldermen, which justices of the peace in other parts of the kingdom do not possess; powers which evince that the charters admitting them to the new commissions of the peace were designed less to *advance* them to some *new* rank and power, than to mould their old authority into the forms which the Legislature found it necessary to adopt, in constructing for the country at large, a scheme of local justice, erected on a new basis out of the ruins of customary institutions, similar to those which, in the city, had never been destroyed. Even when the king's justices obtained the right to hold pleas of the Crown throughout the realm, the mayor, who had succeeded to the portreeve of London, still retained peculiar powers; and the charter of Edward III., which grants that the mayor shall be a justice of gaol delivery for Newgate, and shall be named in every commission for that purpose, is probably but a recognition of his accustomed assessorship; and its provisions have since been extended to the whole bench of aldermen. Indeed the charter of the 2nd of Edward IV., which makes the mayor, and all the aldermen who have passed the chair, justices of the peace and of gaol delivery, expressly states that the functions of justices of the peace, "*both in and out of sessions, had always been, and still were, exercised by the civic authorities*"; the object of the grant being to remove all doubt as to the legality of such authority*. The Lord Mayor and Aldermen of London, therefore, not only hold sessions of the peace, like the magistrates of any other county, but sit as judges of life and death with the king's justices at the Central Criminal Court.

Two of the judges of the superior courts attend at each session, before whom capital charges and the more serious offences are tried.

* "Norton's Commentaries," p. 482.

By a recent arrangement, two courts are now constantly sitting each session, in one of which the judges of the superior courts preside, and in the other the Recorder or Common Serjeant, or the Junior Judge of the Sheriffs' Court. The Recorder usually sits in the evening during each session, with a London jury, to try offenders for crimes committed within the City; the Common Serjeant, or the Judge of the Sheriffs' Court, also presides in the evening in a second court for the same purpose. It is understood that in each court one alderman at the least must always be present. The Recorder always passes the sentences as representing the Lord Mayor, the first commissioner; but the other commissioners make a minute of the sentence in cases tried before them, which is adopted by the Recorder in passing the sentences formally at the end of each session. The cases of all capital convicts at the Old Bailey are reported to the King in Council by the Recorder personally, who, upon receiving His Majesty's directions, issues his warrant to the sheriffs to respite or execute the sentences*.

But few prisoners comparatively are tried by the judges, the cases which they take being such only as are considered of importance, or on which questions of law are likely to arise, including all those cases which were formerly and are still capital. Indeed a great proportion of the business consists of petty larceny cases, which are commonly disposed of at quarter sessions.

General Sessions of the Peace.

The Central Criminal Court Act contains an express saving of the right to hold, as usual, their general and quarter sessions to the justices of the peace, not only of London but also of Westminster, of the Liberty of the Tower, and of the Counties of Middlesex, Essex, Kent, and Surrey, and also leaves untouched the jurisdiction of the ordinary justices of assize, and of *Oyer* and *Terminer* in the three latter counties. Although the jurisdiction of the corporation magistrates is exclusive in the City, yet in Southwark, as already stated, it is only concurrent with that of the county magistrates of Surrey, who formerly held one of their quarterly courts at the New Sessions House, Newington, and the others at Reigate, Guildford, and Kingston respectively.

It will be gathered from the preceding details, that the importance, even of the several county sessions of Middlesex and Surrey, has of late years been much diminished by the operation of the Central Criminal Court Act, while the sessions of the corporation magistrates in the City and in Southwark have dwindled into perfect insignificance.

The sessions of the peace for the city of London are holden eight times in the year. The judges are the Lord Mayor, Aldermen, and Recorder, any four of whom form a quorum; but the Recorder is the acting judge, who charges the jury and delivers the judgments of the court. The jurisdiction of the court, taken strictly, extends, like that of other sessions of the peace, to all kinds of felonies; but the trial of appeals and misdemeanors constitutes its only business; felonies and

* Report of the Corporation Commissioners, p. 136.

misdeameanors, partaking of the nature of felony, being always tried at the Old Bailey. It is nothing more than a sessions of the peace, and is the only tribunal in London for the decision of appeals under the Poor Laws, and appeals against rates and summary convictions*.

Twenty-four of the aldermen are divided into four classes, of six each, for the purpose of holding these sessions as for that of attending at the Central Criminal Court.

The jurymen are summoned by a precept in the names of the justices, tested by the Lord Mayor. One pannel only is formed for the grand and petty juries, from which twenty-three names are first taken by ballot for the grand jury, and twelve others for the petty jury.

There is no exclusive privilege either for counsel or attorneys.

The business transacted in this court has decreased of late, and is at present extremely small, in proportion to the nature and extent of its jurisdiction; the average of the appeals tried at each session not exceeding eight, and of misdeameanors twelve†.

In 1842 there were, on an average, only seven cases before this court, almost wholly petty charges of assault, with one or two of using false weights, and of brothel-keeping.

The Sessions of the Peace for the Borough of Southwark are holden four times in the year before the Lord Mayor, the aldermen who have passed the chair, and the Recorder; the latter being always the presiding judge of the court, as neither the Lord Mayor nor the aldermen can attend. He has power, in case of his necessary absence, to appoint a deputy, who is usually the Common Serjeant.

The Borough Sessions have authority to try all felonies and offences not capital, committed in any part of the Lord Mayor's jurisdiction in Southwark; they also try appeals against summary convictions, but the parish appeals are tried at the County Sessions, which have a concurrent jurisdiction. The court is solely a Sessions of the Peace, and has no jurisdiction of a more extended character.

The juries are taken wholly from the borough, and are summoned by a precept to the High Bailiff, signed by the Lord Mayor and the Recorder.

With all this form, there were no offences whatever tried at this court in 1842.

Neither Surrey, Kent, nor Essex, now have Courts of Session held in the metropolis. There are, however, besides those of the Corporation in London and Southwark, the Middlesex Sessions, held every month at the Sessions House on Clerkenwell Green, and the Westminster Sessions, held at the Sessions House in Westminster, generally on the Thursday preceding the Monday when the Quarter Sessions for Middlesex are fixed to open. These Sessions are held by the magistrates for the city and liberty of Westminster, appointed by the Crown under a separate commission, which, however, does not exclude the concurrence of the county magistrates of Middlesex. A separate commission is also issued for the little precinct called the Tower Liberty, for which General Sessions of the Peace are held quarterly at the

* Report of the Corporation Commissioners, p. 135.

† Ibid.

Sessions House in Wellelose Square. Into the management of these several courts, however, we have neither the space nor the means to enter.

Operation of the Existing System of Criminal Courts.

The best summary which can be given of the judicial business devolved upon the Superior Criminal Courts of the metropolis by the Inferior, and of the relations in which they stand to each other, is contained in the following Returns of the Metropolitan Police for 1842, printed for private circulation. These comprise the criminal statistics of the whole population included within the outer verge of the metropolitan police district, with the exception only of the city of London itself; concerning which no such returns have yet been printed. But this deficiency is only to the amount of the business of one ordinary metropolitan police court, and does not therefore materially detract from their value as an outline of the crime of the metropolis.

Comparative Statements from the year 1831 to 1845 inclusive.

YEARS.	Taken into Custody.	Discharged by the Magistrates.	Summarily disposed of, or held to Bail.	Committed for Trial.	Convicted and Sentenced.	Acquitted.	Bills not Found, or not Prosecuted.
1831	72,824	48,026†	21,843	2,955	1,932	616	251
1832	77,543	50,429‡	23,468	3,656	2,309	591	306
1833	69,959	45,496§	20,791	3,672	2,646	631	299
1834	64,269	34,499	26,302	3,468	2,588	551	329
1835	63,474	32,544	27,817	3,113	2,237	608	268
1836	63,384	29,776	30,433	3,175	2,437	495	243
1837	64,416	33,043	28,345	3,028	2,266	504	258
1838	63,936	30,956	29,685	3,295	2,546	527	222
1839	65,965	33,882	28,488	3,595	2,813	547	235
1840	70,717*	37,559	29,076	4,082	3,081	660	324
1841	68,961	36,708	28,235	4,018	3,020	618	375
1842	65,701	33,609	27,664	4,431	3,316	746	369
1843	62,477	31,670	26,171	4,636	3,455	831	350
1844	62,522	31,347	26,871	4,304	3,126	812	366
1845	59,123	30,317	23,890	4,916	3,548	987	381||

* The police district was considerably extended in January, 1840, so as to include additionally 135 parishes, hamlets, and liberties, with a population of 267,266.

† Including 23,787 drunken cases dismissed by superintendents.

‡ Including 25,702 drunken cases dismissed by superintendents.

§ Including 18,487 drunken cases up to August dismissed by superintendents.

|| Eight to be disposed of at the Spring Assizes, 1846

In the cases summarily disposed of, involving 32,181 male and 15,277 female prisoners—in all 47,408—369 males and 9 females were sentenced to imprisonment for 3 months; 327 males and 47 females for 2 and under 3 months; 1,712 males and 793 females for 1 and under 2 months; 529 males and 373 females for 15 days, and under 1 month; 1,366 males and 761 females for 8 days, and under 15 days; 1,040 males and 642 females for less than 7 days; 10,899 males and 3,768 females were fined; 944 males and 301 females were ordered to find bail; and 14,995 males and 8,523 females were discharged.

Summary Statement of the Persons taken into Custody, Discharged by the Magistrates, Summarily Convicted or Held to Bail, Committed for Trial, Convicted, Acquitted, &c., in the Year 1842.

OFFENCES.	Taken into Custody.	Discharged by the Magistrates.	Summarily disposed of, or held to Bail.	Committed for Trial.	Convicted and Sentenced.	Acquitted.	Bills not Found, or not Prosecuted.
<i>No. 1.—Offences against the Person.</i>							
Murder	33	19	..	14	6	7	1
— Shooting at, stabbing, administering poison, &c.	20	12	..	8	3	3	2
— Cutting and wounding, with intent, &c.	67	35	..	32	26	5	1
— Concealing births of their infants.	7	3	..	4	2	2	..
Manslaughter	20	7	..	13	4	8	1
Sodomy	8	2	..	6	4	2	..
— Assaults, with intent to commit, &c.	20	5	..	15	1	11	3
— Extorting money under threats, &c.	3	2	..	1	..	1	..
Rape	36	20	..	16	10	4	2
— Assaults, with intent to commit, &c.	36	6	..	30	21	8	1
Bestiality	9	3	..	6	1	3	2
Bigamy	30	14	..	16	12	4	..
Child dropping	2	..	..	2	2	..	..
— stealing	6	2	..	4	4	..	..
Assaults, common	5,835	2,655	3,001	179	81	45	53
— on police	2,591	195	2,331	68	44	10	14
Attempting to rescue from custody ..	249	81	168	..	..	..	..
Obstructing police-constables on duty	257	39	218	..	..	..	..
<i>No. 2.—Offences against Property committed with Violence.</i>							
Burglary	92	16	..	76	61	12	3
Breaking into a dwelling-house and stealing	73	18	..	55	45	9	1
Breaking into a dwelling-house, with intent, &c.	8	5	..	3	2	1	..
Breaking within the curtilage of a dwelling-house and stealing	2	..	..	2	1	..	1
Breaking into shops, warehouses, counting-houses, &c.	20	3	..	17	12	5	..
Robbery	50	11	..	39	32	4	3
— Assaults, with intent to rob	12	7	..	5	3	1	1
Feloniously breaking and entering a church and stealing	1	..	..	1	1	..	..
Feloniously breaking into a church, with intent to steal	2	..	..	2	2	..	..
<i>No. III.—Offences against Property committed without Violence.</i>							
Cattle stealing	7	6	..	1	1	..	..
Horse stealing	31	17	..	17	8	6	3
Sheep stealing	11	3	..	8	4	3	1
Larceny in a dwelling-house to the value of 5 <i>l.</i>	162	62	..	100	80	18	2
Larceny in a dwelling-house	697	649	..	48	35	7	6
Larceny from the person	1,868	1,235	..	633	420	152	61
Larceny by servants	541	99	..	442	356	68	18
Larceny from letters, containing bank notes, &c.	11	3	..	8	8	..	..
Larceny, simple	5,919	3,377	..	2,572	1,938	454	180
Carried over	18,772	8,611	5,718	4,443	3,230	853	360

Summary Statement.—continued.

OFFENCES.	Taken into Custody.	Discharged by the Magistrates.	Summarily disposed of, or held to bail.	Committed for Trial.	Convicted and Sentenced.	Acquitted.	Bills not Found, or not Prosecuted.
<i>No. III.—continued.</i>							
Brought forward	18,772	8,611	5,718	4,413	3,230	853	360
Misdemeanors, with intent to steal ..	764	403	361	..	..	..	..
Embezzlement	279	171	..	108	84	23	1
Receiving stolen goods	205	119	..	86	40	44	2
Frauds	312	222	2	88	51	30	7
Conspiracy, with intent to defraud ..	13	3	..	10	3	3	4
Dog stealing	63	43	20	..	..	..	..
Pawning illegally	169	43	126	..	..	..	..
Unlawful possession of goods	2,081	67	2,017	..	..	..	..
<i>No. IV.—Malicious Offences against Property.</i>							
Arson	10	6	..	4	..	1	3
Feloniously wounding cattle	1	..	..	1	1	..	..
Trespasses, malicious	14	10	4	..	..	..	..
Wilful damage	2,770	1,006	1,763	1	..	..	1
<i>No. 5.—Forgery, and Offences against the Currency.</i>							
Forging and uttering forged instru- ments	54	16	..	38	33	5	..
Coining	7	..	..	7	5	2	..
Coin (counterfeit), putting off, utter- ing, &c.....	924	822	..	102	81	20	1
<i>No. 6.—Other Offences not included in the above Classes.</i>							
Apprentices, runaway	146	81	65	..	..	..	..
Attempting to commit suicide	151	116	31	4	1	1	2
Cruelty to animals	217	49	168	..	..	..	..
Deserting their families	130	78	51	1	1	..	..
Deserters.....	126	21	105	..	..	..	..
Disorderly characters.....	4,159	2,424	1,735	..	..	..	..
Disorderly prostitutes.....	2,115	625	1,490	..	..	..	..
Drunkenness	9,363	6,936	2,427	..	..	..	..
Drunk and disorderly characters	7,998	4,332	3,666	..	..	..	..
Furious driving	138	35	103	..	..	..	..
Gambling	616	371	245	..	..	..	..
Hawking without licence	49	30	19	..	..	..	..
Illegally removing goods	4	4	..	..	..	..	..
Illicit distillation.....	58	14	44	..	..	..	..
Indecently exposing the person.....	155	74	80	1	..	1	..
Keeping common brothels.....	11	..	..	11	9	2	..
Mutiny	16	16	..	..	..	..	..
Nuisances	289	101	188	..	..	..	..
Offences under Metropolitan Police Act, Sewers, &c.	441	256	185	..	..	..	..
— Hackney Carriage Act.....	223	27	196	..	..	..	..
— Highway and Turnpike Acts ..	30	..	30	..	..	..	..
— Waterman's Act	1	..	1	..	..	..	..
Perjury	2	1	..	1	..	1	..
Poaching	21	3	18	..	..	..	..
Riot	10	..	..	10	9	1	..
Reputed thieves	249	..	249	..	..	..	..
Smuggling	208	31	177	..	..	..	..
Suspicious characters.....	1,819	1,452	367	..	..	..	..
Vagrants	3,937	1,698	2,239	..	..	..	..
Total	59,123	30,317	23,890	1,916	3,548	987	381

Table showing the Age, Sex, and Sentence of the Persons Tried and Convicted.

AGES.	Total in the Year 1845.			DEATH.		Death Recorded.		TRANSPORTATION.													
								Life.		20 Years.		15 Years.		14 Years.		12 Years.		10 Years.		7 Years.	
	Male.	Fem.	M. & F.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
Under 10 Years of Age	9	2	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..
10 Years and under 15	294	37	331	..	..	..	3	..	..	..	..	2	..	1	..	..	..	12	1	38	..
15 do. and under 20	906	181	1,087	..	..	..	3	..	..	..	..	2	..	1	..	..	..	54	7	85	13
20 do. and under 25	651	173	824	4	1	..	3	..	..	..	..	17	2	4	..	..	..	67	7	78	10
25 do. and under 30	320	142	462	..	..	..	..	..	..	1	..	2	1	2	..	..	..	23	8	28	8
30 do. and under 40	283	152	435	..	..	2	5	..	..	..	..	6	1	1	..	..	..	16	7	29	6
40 do. and under 50	174	90	264	..	..	..	1	..	1	..	..	2	1	..	..	..	..	7	1	10	3
50 do. and under 60	57	46	103	..	..	..	1	..	..	..	..	1	..	..	..	..	..	1	..	5	1
60 do. and upwards....	21	10	31	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Total.....	2,715	833	3,548	5	1	2	13	..	2	..	30	4	8	..	1	..	..	182	31	275	42

AGES.	Total in the Year 1845.			IMPRISONMENT.										Whipped and Discharged.		Fined and Discharged.		Held to Bail.		Judgment Respited.	
				2 Years and upwards.		1 Year and under 2.		6 Months & under 12.		1 Month and under 6.		Under 1 Month.									
	Male.	Fem.	M. & F.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.	Male.	Fem.
Under 10 Years of Age	9	2	11	..	..	..	..	2	1	2	..	2	1	..	..	..	..	..	..	..	..
10 Years and under 15	294	37	331	..	..	5	..	67	11	133	10	37	12	..	..	..	..	..	..	2	2
15 do. and under 20	906	181	1,087	6	2	65	10	279	58	376	80	33	11	1	..	..	..	..	..	..	2
20 do. and under 25	651	173	824	10	1	63	10	152	59	232	77	16	4	..	..	5	1	..	..	..	1
25 do. and under 30	320	142	462	7	2	34	16	58	41	117	54	13	9	..	..	4	2	..	..	1	1
30 do. and under 40	283	152	435	7	..	28	10	51	41	112	78	11	9	..	..	8	..	2	1	2	2
40 do. and under 50	174	90	264	5	1	19	5	43	31	76	45	3	2	..	..	3	..	3	1	1	..
50 do. and under 60	57	46	103	1	..	4	3	8	10	31	30	2	2	..	..	1	..	1	1	1	..
60 do. and upwards....	21	10	31	..	..	2	..	5	2	10	8	2	..	..	..	..	..	..	..	..	..
Total.....	2,715	833	3,548	36	6	220	54	668	254	1,119	382	119	50	1	..	21	3	6	2	7	4

Table showing the Age, Sex, and Degree of Instruction of the Persons taken into Custody, Summarily Convicted or Held to Bail by the Magistrates, and Tried and Convicted in 1845.

Ages.	Taken into Custody.		Summarily Convicted or held to Bail.		Tried and Convicted.	
	Males.	Females.	Males.	Females.	Males.	Females.
Under 10	268	91	38	15	9	2
10 and under 15	2,928	578	1,187	123	294	37
15 " 20	7,954	3,068	3,519	1,191	906	181
20 " 25	8,860	4,419	4,097	1,646	651	173
25 " 30	6,166	3,519	2,822	1,231	320	142
30 " 40	7,526	4,093	3,023	1,377	283	152
40 " 50	3,868	2,050	1,627	721	174	90
50 " 60	1,554	867	618	250	57	46
60 and upwards	760	554	255	150	21	10
Total.....	39,884	19,239	17,186	6,704	2,715	833
	59,123		23,890		3,548	

Degree of Instruction.						
Neither read nor write....	8,875	6,388	3,639	2,086	870	360
Read only, or read and } write imperfectly }	27,315	12,314	12,013	4,385	1,609	457
Read and write well.....	3,123	492	1,277	222	213	15
Superior instruction.....	541	45	257	11	23	1
Total	39,884	19,239	17,186	6,704	2,715	833
	59,123		23,890		3,548	

Of the 59,123 persons taken into custody in 1845, 1,266 males and 274 females were represented to be shoemakers; 776 males, smiths; 257 soldiers; 35 surveyors; 237 sweeps; 1,138 males and 400 females, tailors; 108 tinkers and tinners; 84 tobacco-nists; 142 tool-makers; 110 turners, &c.; 85 watchmakers; 299 watermen; 336 males and 102 females, weavers; 15 males, wool-sorters; and 9,144 males and 15,960 females without any trade or occupation.

Great inconveniences and defects, and needless expense, still attach to the criminal justice of the metropolis. The number of witnesses assembled to appear before the grand jury at the Central Criminal Court is sometimes excessive; and yet it is alleged that its members "throw out a great number of bills which ought to be found, and find others which ought to be thrown out*." Again, there sometimes occurs a want of evidence from the holding of Sessions of the Peace in different parts of the metropolis during the time that the Central Criminal Court is sitting; and some peculiar cases are occasionally in different stages of procedure in the different courts at the same time. Difficulties occur, too, in regard to indictments presented in the Central

* Evidence of Mr. Clark, Clerk of the Court, before the Police Committee of 1838, p. 1382, *et seq.*

Miscellaneous Returns—From the Year 1838 to 1845 inclusive.

YEARS.	Number of Persons reported to the Police as Lost or Missing, and the number Found and Restored by the Police.		Number of Suicides Committed, and the Number Attempted and Prevented by the Police and others.			Number of Fires reported (Chimnies not included), and the Number extinguished by the Police before the arrival of the engines.		Number of Public Houses and Beer Shops Summoned by the Police, and the Number Convicted and Dismissed.			Number of Metropolitan Stage and Hackney Carriages and Carts summoned by the Police, and the Numbers Convicted and Dismissed.		
	Reported Lost or Missing.	Restored by the Police.	Suicides committed.	Suicides attempted, prevented by Police.	Suicides attempted and otherwise prevented.	Number of Fires.	Number extinguished by Police.	Convicted.	Dismissed.	Total.	Convicted.	Dismissed.	Total.
1838	855	538	83	36	65	401	78	924	80	1,004	507	39	546
1839	979	570	96	59	108	471	74	813	113	956	615	93	708
1840	1,153	683	102	30	114	455	57	742	112	854	1,220	167	1,387
1841	1,000	560	139	29	96	543	46	658	141	799	1,818	240	2,058
1842	1,179	623	134	18	91	530	42	667	119	786	1,776	226	2,002
1843	1,218	623	112	27	93	438	49	779	174	953	1,808	190	2,058
1844	1,111	543	155	19	123	528	42	699	128	827	2,220	309	2,529
1845	2,201	1,060	144	15	92	404	66	734	155	889	1,371	148	1,519

Criminal Court. And all these defects seem to suggest the propriety of transferring the small remainder of the judicial business of the different metropolitan Sessions of the Peace to the Central Criminal Court, making whatever modifications in the constitution of that court the consequent augmentation of its business may appear to render necessary.

Whether at the sessions, or at the Central Criminal Court, however, the petty larceny cases which form the great bulk of the judicial business, are worthy of some express consideration. The time of jurors and the expenses of witnesses, are, in every such case, lost, together with the cost of all the paraphernalia of justice, upon arriving at a conclusion which would have been arrived at with far greater certainty at once before the committing magistrate. Indeed, the difficulties in the way of bringing all the parties and all the evidence together for a second trial of such cases is simply a premium upon robbery of so many chances of escape, which weigh very largely with the cunningly weak and improvident creatures who form the bulk of the petty larcenous population; for those chances are very numerous, although it is the moral conviction of the officers of the Central Criminal Court, that very few come to their bar who are not really guilty. So far, however, from pointing out these facts as the prelude to a proposal for abolishing the trial by jury in such cases, they are quoted as reasonable grounds for suggesting the introduction of juries in a modified form into the police-courts themselves, in like manner as it now exists in the county court of Middlesex, since its extension in 1838, to the recovery of debts not exceeding 10*l*. Thus with a small jury, or two assessors, serving for the day, the police-magistrate might safely be entrusted (as it has been proposed to entrust him, in the absence of any such safeguard) with the disposal of the very petty cases which form more than one-half of the present business of the Central Criminal Court, which might thus be enabled to absorb all the remaining business of the sessions, without the necessity of any changes whatever in its organization. A double advantage would attend this important change—courts which are now dropping as much out of public regard as of public utility, will cease to entail a continuous expense; while the police-magistrates and the police-courts, whose daily influence upon the thoughts, feelings, and manners of the population is incalculable, will at once gain the support of a higher public opinion, which they merit, and the assistance of men of middle-class intelligence, well qualified to deal with such cases as it is proposed to leave to them, whom the sitting magistrate would array when the proper case for their judgment came on, precisely as a judge in a superior court.

Statistics of the Administration of Civil and Criminal Justice in British India from 1841 to 1844, both inclusive. BY LIEUT.-COLONEL W. H. SYKES, F.R.S.

[Read before the Statistical Section of the British Association for the advancement of Science at Southampton, 12th September, 1846.]

As the following returns of the Administration of Civil and Criminal Justice in India are in continuation of those formerly submitted to the Statistical Society of London, and published in its Journal, any further notices of the constitution and power of the different courts would be superfluous. My object in continuing the review of the returns was to ascertain whether the native aid called in to assist in the administration of civil and criminal justice were as efficient and satisfactory as in the former review; and I am glad to be enabled to state, that as far as the returns afford evidence, not only does the system work as well as before, but as great, or even a greater, amount of business is got through in less time, without any sacrifice of substantial justice as indicated by the extent of the appeals.

CIVIL JUSTICE : BENGAL GOVERNMENT.

The whole of the courts in Bengal got through their current annual business and diminished their arrears; so that in 1844, in all the courts, the number of cases depending in the several courts were considerably less than in 1841. The Bengal returns do not correspond with those from the other Governments, nor are they in the exact order or form of the former returns. A compendious view of the disposition of the whole of the Civil cases corresponding to No. I. of the Bombay returns is entirely wanting; nor from the present returns are the means afforded in appellate jurisdiction, of comparing the appeals from the decisions of the Native judges with those of the European judges. A return showing the civil debtors in jail at the instance of Government and individuals is also wanting, similar to No. XI. of the Bombay returns, but the Bengal returns have the advantage of those from Bombay in a return of the duration of suits in each court. This return is highly satisfactory, as it shows a more speedy administration of justice in all the courts. In the highest court of appeal the average duration of a suit was one year, seven months, and eight days in 1841, and in 1844 it was only one year and one month. In the European courts the time was reduced from ten months and eleven days in 1841, to seven months and seven days in 1844. In the Principal Sudder Ameens Court from seven months and ten days to five months and twenty-two days. In the Sudder Ameens Courts from eleven months and fourteen days to five months and five days; and in the Moonsiffs Courts from five months and nineteen days to four months and fourteen days.

The total number of appealable cases in the Principal Sudder Ameens Courts in the four years under review was 31,368, and the number absolutely appealed was 6,080, or 19·4 per cent. The reversals are not distinguished from the modifications, but the two together amounted to 2,381, or 7·6 per cent. of the total appealable cases, but more than 30 per cent. of the cases appealed. It is a defect that the reversals are not shown separately. In the Sudder Ameens Courts the total number of cases appealable in four years was 11,818, and

of this number 5,320 were appealed, or 45 per cent. The number modified and reversed was 1,732, or 14·6 per cent. of the appealable cases, but more than 32 per cent. of the cases appealed. In the Moonsiffs Courts the total number of appealable cases in the four years was 243,267 cases, of which 40,404 were appealed, or 16·6 per cent., 13,013 of these cases were reversed or modified, being 5·8 per cent. of the appealable cases, but 32 per cent. of the cases appealed. The amount of appeals and reversals far exceed those in the native courts in Bombay.

The amount of property in litigation in the first two years was nearly eight millions sterling. In 1843 it fell to about 5,680,000*l.*, and in 1844 to three millions sterling.

The very small number of suits connected with caste and religion speaks favourably for the harmony with which the different tribes and sects live in juxtaposition.

I.—Original Suits on the Files of the Moonsiffs Courts.

	1841.	1842.	1843.	1844.
Depending 1 Jan.	41,601	41,536	37,598	35,371
Admitted	99,954	99,144	98,976	103,768
Disposed of	100,019	103,082	101,203	103,690
Depending, 31 Dec.	41,536	37,598	35,371	35,449

II.—Sudder Ameens.

	1841.	1842.	1843.	1844.
Depending, 1 Jan.	2,375	3,400	3,066	1,681
Admitted	5,578	5,152	3,736	2,966
Disposed of	4,583	5,486	5,121	2,997
Depending, 31 Dec.	3,400	3,066	1,681	1,650

III.—Principal Sudder Ameens.

	1841.	1842.	1843.	1844.
Depending, 1 Jan.	5,580	5,658	5,205	4,783
Admitted	10,836	10,221	10,438	9,671
Disposed of	10,758	10,672	10,860	9,917
Depending, 31 Dec.	5,658	5,205	4,783	4,537

IV.—Zillah and City Judges.

	1841.	1842.	1843.	1844.
Depending, 1 Jan.	4,170	3,860	2,681	2,470
Admitted	26,101	24,541	22,298	16,433
Disposed of	26,411	25,720	22,509	16,039
Depending, 31 Dec.	3,860	2,681	2,470	2,864

V.—Sudder Dewanny Adawlut.

	1841.	1842.	1843.	1844.
Depending, 1 Jan., 1841	665	557	425	449
Admitted	328	317	293	315
Disposed of	436	449	269	344
Depending, 31 Dec.	557	425	449	420

VI.—Appellate Jurisdiction over the several classes of Native Judges.

	Principal Sudder Ameens.				Sudder Ameens.				Moonsiffs.			
	1841.	1842.	1843.	1844.	1841.	1842.	1843.	1844.	1841.	1842.	1843.	1844.
Appealable....	7,743	8,170	7,933	7,522	3,168	3,710	2,838	2,102	61,968	60,578	59,730	60,991
Appealed	1,469	2,603	1,128	380	1,137	2,260	1,147	776	9,341	13,614	8,666	8,783
Affirmed.....	727	733	539	412	480	656	646	494	4,812	4,497	4,480	4,390
Modified or Reversed..}	802	656	594	329	367	537	501	327	3,393	3,419	3,146	3,055

VII.—Average duration of a Suit before the several Tribunals, according to the average number of Decisions during the last Five years.

	1841.			1842.			1843.			1844.		
	Yrs.	Mths	Days.	Yrs.	Mths	Days.	Yrs.	Mths	Days.	Yrs.	Mths	Days.
Sudder Dewanny } Adawlut	1	7	8	1	2	25	1	3	5	1	1	....
Zillah and City } Judges.....	10	11	....	7	9	....	6	11	....	7	7
Principal Sudder } Ameens	7	10	....	6	16	....	5	28	....	5	22
Sudder Ameens	11	14	....	9	14	....	5	11	....	5	5
Moonsiffs	5	19	....	4	28	....	4	16	....	4	14

VIII.—Total Value of the Regular Suits Depending at the end of the Year.

	1841.	1842.	1843.	1844.
	Rupees.	Rupees.	Rupees.	Rupees.
Before the Sudder Adawlut	9,086,782	9,968,405	10,195,630	8,711,955
Other Courts (original).....	67,341,991	66,490,490	44,916,590	24,408,443
Ditto (appeals).....	2,023,015	1,728,290	1,754,516	1,941,143
Total	78,451,788	78,187,185	56,866,736	30,061,541

IX.—Description of Original Suits.

	1841.	1842.	1843.	1844.
Connected with Land Rent	16,218	17,365	17,375	26,025
Otherwise connected with Land	12,125	12,892	6,281	....
Connected with Debts, Wages, &c.....	67,143	64,437	70,056	64,500
Connected with Caste, Religion, &c.	443	451	664	738
Connected with Indigo, Sugar, Silk, &c.	4,032	3,470	4,740	3,935
Total.....	99,961	98,615	99,116	95,198

CIVIL JUSTICE: AGRA GOVERNMENT.

The Returns from the Agra Government like those from Bengal are wanting in a compendious view of the whole amount of Civil Cases disposed of, also in the means of comparing the relative amount of appeals from the decisions of European and Native judges, and in a return of civil debtors. From the returns available, however, business is evidently progressing satisfactorily. In the courts of the European judges, the principal *Sudder Ameens*, and those of the *Moonsiffs*, the current business of the year appears to have been got through and arrear diminished. In the highest Appellate Court a slight increase of arrears took place in the years 1843 and 1844, and in the courts of the *Sudder Ameens* less activity is manifested than in any of the others; the current business of the year not being got through. Considerable improvement, however, had taken place in shortening the duration of suits in all the courts; from seven months and thirteen and a half days, in the *Sudder* or highest Court of Appeal in 1842, to six months and eighteen and a half days in 1844; and very remarkably so in the courts of the European judges, from seven months and three days in 1842, to four months and sixteen days in 1844. Cases occupied about the same time in the principal *Sudder Ameens* Courts during the years under review, but the suits were comparatively of short duration. The *Sudder Ameens*, as might be expected from not getting through the current business of the year, do not figure favourably in comparison with the other judges, the average duration of their suits having increased from four months and five days to four months and sixteen days. The *Moonsiffs* reduced the duration of a suit from three months and one day in 1842, to two months and twenty-one days in 1844. It may be remarked, very much to the credit of all the courts, European and Native, that the duration of a suit with them is considerably less than in the courts of Bengal, in the highest court of appeal, the *Sudder*, to half the time even.

The appeal cases from the several courts are only shown for the Native courts for 1843 and 1844. The principal *Sudder Ameens* had 9,859 cases appealable, and of this number 1,724 were appealed, or $17\frac{1}{2}$ per cent. Of these were modified or reversed, 832 or 84 per cent. of the total cases *tried*, but amounting to 48 per cent. of the cases

appealed. The *Sudder Ameens* had 6,168 appealable cases, and 1,772 were appealed or 28·7 per cent., 603 were modified or reversed, being 9·7 per cent. of the whole number of cases, and 34 per cent. of the appealed cases. The *Moonsiffs* had 71,826 appealable cases; of these 11,035 were appealed, or 15·3 per cent., 3,919 were modified or reversed, being 5·4 per cent. of the whole number of cases, and 35 per cent. of those appealed. The *Moonsiffs*, therefore, have the advantage over the other native judges in their decisions being less questioned. The value of the property in dispute in the respective years was 1,637,941*l.*, and 1,057,260*l.*, and 1,442,861*l.*

I.—*Original Suits on the Files of the Moonsiffs Courts.*

	1841.	1842.	1843.	1844.
Depending 1st January, 1843	14,560	13,581	12,441
Admitted	56,703	56,323	58,484
Transferred	3,953	4,729	2,021
Disposed of	53,729	52,883	56,189
Depending 1st January, 1843	13,581	12,441	12,638

II.—*Sudder Ameens.*

	1841.	1842.	1843.	1844.
Depending 1st January, 1842.—Original	773	1,062	894
Admitted	3,152	4,545	2,641
Transferred	77	385	131
Disposed of	2,856	4,109	2,470
Depending 1st January, 1843	992	1,113	934

III.—*Principal Sudder Ameens.*

		1841.	1842.	1843.	1844.
Depending 1st January, 1842	{ Original ....	....	1,711	1,390	1,164
	{ Appeal .....	....	671	375	512
Admitted	{ Original ....	....	3,778	2,767	2,807
	{ Appeal .....	....	2,705	3,265	3,237
Transferred to other Courts	{ Original ....	....	518	208	110
	{ Appeal .....	....	94	45	237
Disposed of	{ Original ....	....	3,581	2,785	2,878
	{ Appeal .....	....	2,705	3,083	2,902
Depending 1st January, 1843	{ Original ....	....	1,390	1,164	975
	{ Appeal .....	....	375	512	610

IV.—Judges.

		1841.	1842.	1843.	1844.
Depending 1st January, 1842	{ Original ....	....	12	17	11
	{ Appeal .....	....	3,263	3,007	2,287
Admitted	{ Original ....	....	8,503	6,964	3,104
	{ Appeal .....	....	7,560	7,168	6,669
Transferred to other Courts....	{ Original ....	....	8,463	6,939	4,072
	{ Appeal .....	....	2,743	3,383	3,061
Disposed of	{ Original ....	....	35	31	17
	{ Appeal .....	....	5,073	4,505	4,397
Depending 1st January, 1843	{ Original ....	....	17	11	4
	{ Appeal .....	....	3,007	2,287	1,664

V.—Sudder Dewanny Adawlut.

	1841.	1842.	1843.	1844.
Depending 1st January, 1842	139	113	120
Admitted	156	180	254
Decided	120	111	118
Otherwise disposed of	62	62	123
Depending 31st December	113	120	133

VI.—Description of Original Suits.

	1841.	1842.	1843.	1844.
Connected with Land Rent	13,802	10,334	15,383
Otherwise connected with Land
Connected with Debts' Wages	43,739	46,779	44,779
Connected with Caste, Religion	78	65	55
Connected with Indigo, Sugar, Silk, &c.	633	751	714

VII.—Average Duration of a Suit before the several Tribunals.

	1841.			1842.			1843.			1844.		
	Yrs.	Mths	Days.	Yrs.	Mths	Days.	Yrs.	Mths	Days.	Yrs.	Mths	Days.
Sudder Dewanny } Adawlut.....	7	13½	....	8	9½	....	6	18½	....
Zillah Judges } Principal Sudder } Ameens.....	7	3	....	5	21	....	4	16	....
Ameens.....	3	11	....	3	12¾	....	3	7	....
Moonsiffs	4	5	....	3	9¾	....	4	16	....
	3	1	....	2	23	....	2	21	....

VIII.—*Total Value of the Regular Suits Depending at the end of the Year.*

	1841.	1842.	1843.	1844.
Before the Sudder Adawlut } Appeals	Rupees. 1,413,918	Rupees. 1,535,742	Rupees. 2,071,369
Other Courts.—Original	13,986,716	6,610,978	9,561,369
„ Appeals	978,779	2,425,880	2,795,875
Total	16,379,413	10,572,600	14,428,613

IX.—*Appellate Jurisdiction over the several classes of Native Judges.*

	Principal Sudder Amcens.				Sudder Amcens.				Moonsiffs.			
	1841.	1842.	1843.	1844	1841.	1842.	1843.	1844.	1841.	1842.	1843.	1834.
Appealables	4,941	4,918	..	..	2,901	3,177	..	..	35,078	36,748
Appealed	974	750	..	..	937	865	..	..	5,415	5,620
Affirmed	555	523	..	..	576	562	..	..	3,264	3,530
Modified or } Reversed .. }	475	357	..	..	287	316	..	..	2,075	1,844
Depending												

CIVIL JUSTICE: MADRAS GOVERNMENT.

The European Provincial Courts having been abolished in 1842, I do not see any practical advantage in inserting the returns from those courts for 1841 and 1842. The returns from the Madras Government are more elaborate than those from the other Governments; but they differ much in form and character, and do not admit of ready comparisons with them; they are wanting also in a compendious review of the whole current business of each year; want also a return of the duration of suits, and the value of property litigated, and returns of the original suits before the Principal Sudder Amcens. On the other hand, there are returns of appeals from court to court, instead of the compendious Table V of the Bengal returns.

The following is the jurisdiction of the courts as now constituted under the Madras Government. The Village Moonsiffs exercise jurisdiction to the amount of 10 rupees (1*l.*.) without institution fee or appeal. The District Moonsiffs to the extent of 1,000 rs. (100*l.*), with fees and appeal. The Sudder Amcens in reference to the extent of 2,500 rs. (250*l.*). The European Registers to the extent of 3,000 rs. (300*l.*) The Principal Sudder Amcens (natives), and Assistants, and Auxiliary Judges (Europeans), to the extent of 5000 rs. (500*l.*). The Zillah Courts have power to a greater extent. Appeals exist from all these Courts to the Supreme or Sudder Court. From the character of the returns above noticed I cannot enter into details or contrasts and whether the several courts have or have not got through their annual original and appeal business I cannot tell, for the numbers depending at the commencement of each year are nowhere given. If Table V be intended to show the amount of business done respectively by the European Judges and by the Native Judges for the years 1841 and 1842, then all the tribunals determined 133,280 suits; the European tribunals 3830, and the Native 129,450; the former performing 2·87 per cent. of the business, and the latter 97·13 per cent.

I.—Original Suits on the Files of the Village Moonsiffs Courts.

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Instituted.....	1,634	2,178	1,865	2,258	1,786	....	2,530	....
Decided. { On the merits	754	963	659	795	750	....	795	....
{ On admission of Defendants }	394	95	113	214	209	....	198	....
{ By default .....	....	545	970	711	463	....	556	....
{ Razanamah	406	646	637	598	524	....	706	....
Total	1,554	2,249	2,379	2,318	1,946	....	2,245	...
Depending	1,927	1,802	1,379	1,309	1,193	....	1,683	....

II.—Original Suits before the District Moonsiffs.

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Instituted	25,339	27,254	23,486	30,576	27,346	....	28,100	....
Referred	846	324	162	144	124	....	47	....
Total	26,185	27,578	23,648	10,126	....	....	....	....
On the merits	11,304	10,083	9,409	1,682	9,962	....	9,980	....
Admission of De- fendants }	7,797	1,853	1,316	7,208	1,356	....	1,324	....
By default .....	....	8,165	7,065	8,859	7,533	....	7,503	....
Razanamah	7,174	7,974	6,687	1	7,963	....	8,064	....
Total	26,280	28,075	24,477	27,875	26,814	....	26,371	....
Depending	21,606	20,536	19,007	21,431	21,796	....	24,315	....

III.—Original Suits before the several Zillah Courts.

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Instituted	4,731	4,869	3,744	5,256	3,387	....	4,193	...
By Judges, Assistant Judges, and principal Sudder Ameeris	608	727	556	788	587	....	387	....
Registrars	143	296	183	212	91	....	....	....
Sudder Ameeris	3,027	3,943	3,084	4,146	2,827	....	2,798	....
Total	3,778	4,966	3,821	5,146	3,505	....	3,685	....

IV.—Suits and Appeals Decided in the several Zillah Courts.

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Decided .....	....	6,446	4,975	6,890	4,662	....	3,983	....
Depending	7,709	7,237	7,157	7,047	6,903	....	7,279	....
Total	7,709	13,683	12,132	13,937	11,565		11,262	

V.—Operations of the European Tribunals in Original Suits.

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
By the Provincial Courts, Judges, Assistant Judges, and Registrars	811	7,041	825	1,153	....	....	....	....
By the other Tribunals	30,870	34,273	29,950	34,357	....	....	....	....
Total	31,681	35,314	30,775	35,510	....	....	....	....

VI.—Appeals from District Moonsiffs to Sudder Ameens.

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Referred	483	417	510	534	....	....	....	....
Reversed	151	178	118	204	....	....	....	....
Confirmed	243	271	152	328	....	....	....	....
By default	12	24	14	53	....	....	....	....
Razanamah	5	18	10	13	....	....	....	....
Total	411	491	294	598	....	....	....	....

VII.—Appeals from District Moonsiffs to Registrars.

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Referred	47	124	93	67	....	....	....	....
Reversed	23	38	29	30	....	....	....	....
Affirmed	33	43	61	43	....	....	....	....
By Default	2	3	1	3	....	....	....	....
Razanamah .....	....	8	3	3	....	....	....	....
Total .....	....	92	84	79	....	....	....	....

VIII.—*Appeals from District Moonsiffs to Zillah Judges.*

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	....
Appealed	725	734	649	776	585	....	518	2
Reversed.....	72	90	46	58	77	....	37	....
Confirmed	88	123	77	106	70	....	56	....
By Default	32	26	30	52	56	....	10	....
Razanamah	14	10	8	13	12	....	2	....
Total	206	249	161	229	215	....	105	....

IX.—*Appeals from the Sudder Ameens to the Registrars.*

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Referred	149	257	258	161	....	....	....	....
Reversed.....	20	49	55	55	....	....	....	....
Affirmed	49	77	73	103	....	....	....	....
By Default	3	10	13	5	....	....	....	....
Razanamah	4	4	9	6	....	....	....	....
Total	76	140	150	169	....	....	....	....

X.—*Appeals from Sudder Ameens to Zillah Judges.*

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Appealed	552	600	591	662	531	....	353	....
Reversed.....	86	145	114	172	127	....	149	....
Confirmed	137	165	134	179	111	....	201	....
By Default	27	37	17	58	55	....	30	....
Razanama	16	17	14	18	18	....	13	....
Total	266	364	279	427	341	....	393	....

XI.—*Appeals from Native Judges, or Principal Sudder Ameens, to Zillah Judges.*

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Appealed.....	21	16	16	19	37	....	71	....
Reversed	3	6	3	3	1	....	7	....
Confirmed	5	13	6	4	2	....	16	....
By Default .....	....	1	2	5	2	....	....	....
Razanamah .....	....	....	....	....	....	....	1	....
Total	8	20	11	12	5	....	21	....

XII.—*Appeals from Registrars to Zillah Judges.*

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Appealed.....	61	70	54	81	47	....	4	....
Reversed.....	10	15	17	26	16	....	16	....
Confirmed	28	41	22	44	25	....	27	....
By Default	8	1	7	7	4	....	1	....
Razanamah.....	7	2	2	3	1	....	2	....
Total	42	59	48	80	46	....	46	....

XIII.—*Appeals from Assistant Judges to Zillah Judges.*

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Appealed.....	68	53	49	77	39	....	37	....
Reversed.....	5	15	11	19	11	....	12	....
Confirmed	17	39	25	34	36	....	31	....
By Default	4	9	4	10	12	....	16	....
Razanamah.....	....	2	2	1	....	....	1	....
Total	26	65	42	64	59	....	59	....

XIV.—*Sudder Adawlut Appeals.*

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Decided	3	13	16	14	7	....	33	....
Confirmed	2	6	4	6	3	....	23	....
Dismissed .....	....	6	8	8	1	....	2	....
Reversed	1	1	4	....	1	....	3	....
Depending	57	54	42	31	33	....	75	....
Remanded .....	....	....	....	....	1	....	5	....
Total	63	80	74	59	46	....	141	....

XV.—*Description of Parties in the foregoing Suits.*

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Plaintiffs, {	Zemindars.....	2,905	2,856	2,840	2,990	....	2,907	....
	Renters	1,245	1,634	6,056	1,108	....	1,082	....
	Ryots	8,625	7,581	8,211	7,957	....	8,999	....
	Merchants and Others.....	23,733	19,956	24,809	21,486	....	21,911	....
	Given for 5 Years.	36,508	32,027	31,916	33,541	....	34,899	....
Total		36,508	32,027	31,916	33,541	....	34,899	....

XV.—*Descriptions of Parties in the foregoing Suits*—continued.

		1841.		1842.		1843.		1844.	
		1	2	1	2	1	2	1	2
Defendants {	Zemindars.....	Given for 5 Years.	4,331	3,601	4,215	4,105	....	3,945	....
	Renters		1,925	2,048	2,307	1,705	....	2,107	....
	Ryots		17,926	15,580	16,814	16,319	....	16,383	....
	Merchants and Others.....		20,598	17,315	20,848	17,813	....	13,953	....
	Total								

CIVIL JUSTICE: BOMBAY GOVERNMENT.

The Returns from Bombay have not a common form with those of either of the other Governments of India. In some tabular statements they are deficient, but this deficiency is more than compensated by the introduction of other returns, which are not sent from Bengal, Madras, or Agra; particularly the Table No. I., which gives a compendious view of the whole number and disposition of Civil cases for entire years, leaving details to be indicated in the tables from the respective courts. The valuable Table No. XI. is also not sent from the other Governments, showing the number of debtors confined at the instance of individuals and at the instance of Government. The Bombay Returns are defective in the Appellate tables, and in filling up the details of the working of the respective courts. On the whole, however, they are sufficiently perspicuous and satisfactory, and show the same efficient results in the employment of native judges, as in the returns I formerly submitted to the Statistical Society. Of the total number of original suits before all the courts, the European judges decided in the half year of 1842, nearly 2·15 per cent., and 1·34 per cent. respectively, and for the entire years 1843 and 1844, within a fraction 1·18 and 1·32 per cent. respectively. The native judges, for the half years of 1842, decided 97·85 per cent., and 98·66 per cent. respectively, of the whole number of original suits, and for the entire years 1843 and 1844, they decided 98·92 per cent., and 98·68 per cent. respectively.

In regard to appeals from the decisions of native judges it appears that in 1843 the returns give 3,291 cases appealed out of 72,959, or about 4·78 per cent., and of this number 1,061 were reversed, or 1·45 per cent., not in fact three cases reversed out of every 200 decided. In 1844 the number of cases decided by native judges was 74,067, and of these 3,571 were appealed, or 4·82 per cent. of this number 936 were reversed, or 1·26 per cent: that is, not more than 1½ cases were reversed in 100 tried. This affords strong testimony to the carefulness of the decisions by the native judges. The discrepancies in these proportions and those of decisions by European judges are so considerable, as indicated by the returns, that further explanations are necessary to account for them. The returns do not afford the means of stating the number of appeals from each of the classes of Judges, European and Native.

The annual current business of the whole courts would appear to have been well kept down, and arrears to a small extent diminished. The Sudder Adawlut, in 1843, diminished its arrears, and in 1844 cleared off the business of the year.

Table XI. of these returns gives the number of debtors confined at the instance of the Government and of individuals. An opinion obtains in Europe, and even in India to a certain extent, that the land tax presses very severely upon the people. Now if this were really the case, the debtors to Government would be numerous, and the incarcerations proportionally numerous; but it would appear from this table that, in the half years of 1842, there were respectively only nine, and five farmers, in jail at the instance of Government. In the year 1843 only five, and in the year 1844 this small number was reduced to two, and this under a Government controlling between six and seven million of souls.

I.—Original Suits on the File of the Adawlut Courts.

	1841.		1842.		1843.	1844.
	1	2	1	2		
On the File, 1st Jan., 1842	8,848	9,336	9,287	9,319
Instituted during the half-year	34,826	39,464	74,072	74,863
Total	43,674	48,800	83,359	84,182
Decided on merits	20,411	25,675	44,016	45,338
Dismissed	1,874	1,680	3,969	3,870
Dismissed in default	4,234	3,379	5,034	1,228
Adjusted	7,651	8,770	19,517	20,229
Depending	9,504	9,296	9,319	9,076
Total, 31st July	43,674	48,800	82,855	82,741
Decided by European Judges	728	513	998	990
Ditto by Native Judges	33,424	*38,929	72,959	74,067
Ditto by Punchaut	78	22	83	49
Total decisions.....	*34,170	*39,464	†74,040	‡75,106

Remaining, 1st Jan, 1843.

* European Judges, 2.15 per cent. † 7.31 per cent. ... 1.18 and ‡ 1.32 per cent.
Native ditto 97.75 „ 98.66 „ ... 98.72 ‡ 98.68 „

II.—Moonsiffs.

	1841.		1842.		1843.	1844.
	1	2	1	2		
Depending
Admitted
Decided	24,940	29,400	54,577	56,143
Depending, end of half-year

III.—*Sudder Ameen.*

	1841.		1842.		1843.	1844.
	1	2	1	2		
Depending
Admitted
Disposed of	5,892	6,718	13,123	13,406
Depending, end of half-year

IV.—*Principal Sudder Ameen.*

	1841.		1842.		1843.	1844.
	1	2	1	2		
Depending
Admitted
Disposed of	2,592	2,811	5,259	4,518
Depending, end of half-year

V.—*European Judges.*

	1841.		1842.		1843.	1844.
	1	2	1	2		
Depending
Admitted
Disposed of	728	513	998	990
Depending, end of half-year

VI.—*Sudder Adawlut.*

	1841.		1842.		1843.	1844.
	1	2	1	2		
Depending	129	128	89	79
Admitted	65	71	121	79
Disposed of	59	107	121	158
Dismissed, on default	1	3	8	73
Adjusted	3	..	5	5
Confirmed	39	58	60	40
Amended	2	8	1	2
Reversed	18	41	51	31
Depending, end of half-year	128	89	79	79

VII.—*Appellate Jurisdiction.*

	Appeals from European Judges.						Appeals from Native Judges.					
	1841.		1842.		1843.	1844.	1841.		1842.		1843.	1844.
	1.	2.	1.	2.			1.	2.	1.	2.		
On the file, July 1, 1842	1,303	1,354	1,406	1,190	..	..	..	..	..	..
Referred from European Judges	261	399	610	564	..	..	..	..	..	..
Ditto from Natives	1,691	1,977	3,291	3,571
Confirmed	239	270	414	311	..	..	735	914	1,699	1,391
Amended	42	21	57	39	..	..	213	273	481	374
Reversed	83	81	132	13	..	..	407	570	1,061	936
Total disposed of	1,901	2,324	4,117	3,667	..	..	..	..	..	..
Depending	1,354	1,406	1,190	1,658	..	..	..	..	..	..

VIII.—*Aggregate Value of the Cases.*

	1841.		1842.		1843.	1844.
	1	2	1	2		
Before the Sudder Adawlut	104,877	53,472	120,464	Rupees. 27,819
Original Suits before other Courts	1,798,321	2,180,372	1,021,151	3,583,591

IX.—*Description of Original Suits.*

		1841.		1842.		1843.	1844.
		1	2	1	2		
Plaintiffs	{ Zemindars .....	....	....	1,958	1,983	3,333	..
	{ Ryots .....	....	....	12,642	12,785	23,955	..
	{ Miscellaneous .....	....	....	16,137	22,469	37,277	..
Defendants	{ Zemindars .....	....	....	6,759	6,289	10,982	..
	{ Ryots .....	....	....	10,983	14,166	24,441	..
	{ Miscellaneous .....	....	....	17,693	22,194	39,673	..

X.—*Length of time Suits have been upon the File, Original and Appeals.*

		1841.		1842.		1843.	1844.
		1	2	1	2		
Sudder Adawlut	{ Under a Year .....	....	....	65	74	62	53
	{ Above a Year .....	....	....	63	65	47	26
Other Courts	{ Under a Year .....	....	....	9,323	9,111	9,062	8,904
	{ 1 to 2 Years .....	....	....	162	166	206	142
	{ Above 2 Years .....	....	....	19	19	51	30
Appeal Cases	{ Under a Year .....	....	....	1,287	1,378	1,463	1,528
	{ Above a Year .....	....	....	67	28	27	130

XI.—*Civil Debtors in Jail.*

	1841.				1842.				1843.		1844.	
	1.		2.		1.		2.		No.	Amt. Rs.	No.	Amt. Rs.
	No.	Amt	No.	Amt	No.	Amt. Rs.	No.	Amt. Rs.				
At the instance of individuals.....	121	3,931	129	24,324	150	112,752	123	101,992
For arrears of revenue at instance of Government...	9	4,223	5	4,008	5	128	2	348
Total number in jail	130		134		155		125	

CRIMINAL JUSTICE: BENGAL GOVERNMENT.

The constitution and power of the several Criminal Courts having been explained in the tables published by the Statistical Society, to which the present tables are supplementary, little further is requisite than a reference to the tables themselves for an explanation of the working of the several courts. It would appear that the number of offenders had increased before the Magistrates and Lower Courts from 65,908 in 1842, to 87,838 in 1844; but the acquittals had increased in a greater ratio. Before the Sessions Judges also the offenders had increased from 3,659 in 1842, to 4,559 in 1844; but the acquittals had also increased in a greater ratio. Before the highest Criminal Court the cases referred had diminished from 642 in 1841, to 547 in 1844; indicating that very atrocious cases had been of less frequent occurrence; and in this court also the acquittals had increased. Out of 322,394 prisoners tried in the several courts, in the four years under review, only 112 were condemned to death by the Nizamut Adawlut, being only 0·034 per cent. of the prisoners, or one in 2,878 criminals. It will be seen that in 1841 there were 99 prisoners sentenced to imprisonment for life by the Nizamut Adawlut, and only 19 in 1844, while in 1841 only 26 were transported, and in 1844 there were 79. These changes resulted from the Court of Directors disapproving of imprisonment for life and suggesting transportation instead. Contrasting the sentences of death in England and Wales for the corresponding years of 1841, 1842, 1843, and 1844, with the sentences in India, it will be found that the contrast is most favourable to the leniency of the Indian Courts. The following is from the Official Criminal Returns of England and Wales.

Years.	Prisoners.	Sentences of Death.
1841	27,760	80
1842	31,309	57
1843	29,591	97
1844	26,542	57
Total.....	115,202	297

Which give a per centage of 0·258, or one sentence of death to every 388 prisoners, the proportion in Bengal being one in 2,878. And it will be borne in mind that this is for a period subsequent to the

modification of the English sanguinary code. In 1841 the committals to the population were one in 619 souls. In Bengal, in the same year, the prisoners being 67,720, and the population about forty-two millions; this proportion, singularly enough, would be one committal to 620 souls.

I may here state that the returns from India do not distinguish the age or sex of the prisoners, or the amount of instruction they may have received.

The important Table, No. VI., showing the Criminal business performed by the Magistrates and their subordinates, including the native judges, is only for the year 1842, and is the only one received. There are not any tables of the numbers of prisoners in the jails, nor returns of the average imprisonment of offenders before conviction by the Nizamut Adawlut; nor tables of appeals, nor tables of crimes.

The blanks in the tables from the non-regulation provinces result from the non-receipt of the returns for 1843 and 1844. It does not appear from the returns that Moonsiffs exercise criminal jurisdiction; but Principal Sudder Ameens and Sudder Ameens do.

I.—*Magistrates, and Officers subordinate to them.*

	1841.	1842.	1843.	1844.
Prisoners	67,720	65,098	85,319	87,830
Acquitted	19,569	18,667	36,310	33,935
Convicted	41,806	40,642	41,911	46,609
Committed for Trial before Ses- sions Judge	3,437	3,287	3,782	4,085
Pending	2,190	1,857	2,177	2,004
Otherwise disposed of .....	...	639	1,139	656
Transferred .....	...	...	...	541

II.—*Sessions Judges.*

	1841.	1842.	1843.	1844.
Under Trial	3,939	3,659	4,270	4,559
Acquitted	895	953	1,113	1,237
Convicted and Sentenced	2,064	1,772	2,096	2,313
Referred to Nizamut Adawlut	556	503	592	475
Pending	360	377	409	467
Otherwise disposed of .....	...	51	60	52
Transferred .....	...	...	...	15

III.—*Nizamut Adawlut.*

	1841.	1842.	1843.	1844.
Under Reference	612	516	574	517
Acquitted	168	156	127	186
Convicted	384	305	380	316
Pending	51	57	23	10
Otherwise disposed of .....	...	28	38	16

IV.—Sentences by the Nizamut Adawlut.

	1841.	1842.	1843.	1844.
Death	29	16	41	26
Transportation	26	56	61	79
Imprisonment for life	99	43	11	19
Ditto 14 years and upwards	54	51	46	42
Ditto 7 ditto ditto	60	39	76	49
Ditto 3 ditto ditto	57	52	66	35
Ditto for less than 3 years	59	48	70	14
Ditto for 21 years .....	....	....	....	1

V.—Sentences of Imprisonment by the several Courts.

	1841.	1842.	1843.	1844.
From 1 to 16 years	9,026	8,558	....	....
For less than 1 year	11,824	11,605	....	....

VI.—Magistrates, and Joint and Assistant Magistrates and Native Judges, 1842.

	By Magistrate.	By Joint Magistrate.	By Assistant Magistrate.	By Principal Snadder Ameens	By Snadder Ameens.	By Law Officer.	Total disposed of.	Number of Prisoners.
Number of Prisoners .....	....	....	....	....	....	....	....	65,098
Acquitted	10,167	3,909	769	999	843	1,980	18,667	....
Convicted	21,868	8,700	2,051	1,752	1,789	4,482	40,642	....
Committed for Trial before Sessions Judge .....	....	....	....	....	....	....	3,287	....
Otherwise disposed of .....	....	....	....	....	....	....	639	....
Pending .....	....	....	....	....	....	....	....	63,235
Total .....	....	....	....	....	....	....	....	1,857
								65,092

VII.—Punishments by Magistrates and Joint Magistrates, and Native Judges.

	1841.	1842.	1843.	1844.
Imprisonment above 3 years	722	862
Ditto ditto 2 ditto	968	1,018
Ditto ditto 1 ditto	1,552	1,531
Ditto ditto 6 months	3,419	2,887
Less than 6 months	10,451	11,060
Fined	22,464	24,744
On Security	1,225	1,679
Dismissed	1,525	1,691
Flogged	169	1,137

VIII.—Punishments by Sessions Judges.

	1841.	1842.	1843.	1844.
Imprisonment, 16 years	27
Ditto, 14 years and upwards....	130
Ditto, 7 ditto ditto	703	612
Ditto, 3 ditto ditto	785	999
Ditto, 2 ditto ditto	239	181
Ditto, 1 year	156	123
Less than 1 year	110
Fined and discharged.....	3

IX.—Extra Regulation Provinces by Magistrates and their Assistants, and Native Judges.

	1841.	1842.	1843.	1844.
Prisoners	10,094	10,119	....	....
Acquitted	3,621	3,903	....	....
Convicted	6,010	5,800	..	....
Committed.....	183	172	....	....
Otherwise disposed of	22	26	....	....
Pending	258	248	....	..

X.—Sessions Judges.

	1841.	1842.	1843.	1844.
Under Trial	329	217	....	....
Acquitted	80	43	....	....
Convicted	157	112	....	....
Referred to Nizamut Adawlut	55	30	....	....
Otherwise disposed of	11	10	....	....
Pending	23	22	....	....

XI.—Nizamut Adawlut.

	1841.	1842.	1843.	1844.
Under Reference	39	40	....	..
Acquitted	7	8	....	..
Convicted	26	25	....	....
Remanded to Sessions Judge	7	..	..	....
Otherwise disposed of	2	....	....	....
Pending	3	7	....	....

XII.—*Sentences by Nizamut Adawlut.*

	1841.	1842.	1843.	1844.
Death	2	6	....	....
Transportation for Life .....	....	4	....	....
Imprisonment for Life.....	7	5	....	....
Ditto 14 years and upwards	4	4	....	....
Ditto 7 ditto ditto	7	1	....	....
Ditto 3 ditto ditto	3	5	....	....
Ditto less than 3 ditto	3	..	....	....

XIII.—*Sentences of Imprisonment by the several Courts.*

	1841.	1842.	1843.	1844.
From 1 to 16 years	151	115	....	....
For less than 1 year	2,171	2,451	....	....

CRIMINAL JUSTICE: AGRA GOVERNMENT.

The forms and character of the returns from the Agra Criminal Courts differ essentially from those from the Bengal Courts. While there are not any returns corresponding to No. VI. of the Bengal returns; or any return of sentences by the different Courts; the Agra returns have the advantage of Tables of Crimes, of the prisoners in the jails, of the ordinary periods of cases referred to the Nizamut Adawlut, and also of the returns of appeals; none of which are in the Bengal returns. The chief features of these returns are the modifications or reversals of sentences under appeal; and the formidable array of murders, compared with other crimes referred to the Nizamut Adawlut; but this is partly accounted for by the court taking cognizance only of the highest class of crimes. The modifications or reversals of sentences by the Sessions Judges and Commissioners upon appeals against sentences of the Magistrates, Joint Magistrates, and Native Judges, would appear to be very considerable.

1.—*Magistrates and Joint Magistrates.*

	1841.	1842.	1843.	1844.
Prisoners under trial	41,047	47,000	....	....
Acquitted and discharged	12,259	13,496	....	....
Convicted and sentenced	20,969	24,217	....	....
Committed for trial before Ses- sion Judges	3,102	326	....	....
Pending .....	....	....	....	....

II.—*Assistants, Principal Sudder Ameeris, and Sudder Ameeris, included in the above total Prisoners.*

	1841.	1842.	1843.	1844.
Acquitted and discharge	1,115	2,466	....	....
Convicted and sentenced	2,366	3,382	....	....
Otherwise disposed of .....	...	...	....	....
Pending .....	....	...	....	...

III.—*Sessions Judges, by Appeals from Magistrates and Joint Magistrates.*

	1841.	1842.	1843.	1844.
Total Prisoners	1,992	2,100	....	....
Confirmed	1,126	1,211	....	....
Modified or reversed	693	600	....	....
Otherwise disposed of .....	....	....	....	....
Pending .....	....	...	....	....

IV.—*Commissioners, by Appeals from Magistrates and Joint Magistrates.*

	1841.	1842.	1843.	1844.
Total Prisoners	1,185	1,317	....	....
Confirmed	625	692	....	....
Modified or reversed	541	384	....	....
Otherwise disposed of .....	....	....	....	....
Pending .....	....	....	....	....

V.—*Number of Persons under Trial by the Sessions Judges.*

	1841.	1842.	1843.	1844.
Under trial ..	3,668	3,288	....	....
Acquitted and discharged	1,032	722	....	....
Convicted and sentenced	1,764	2,733	....	....
Referred to Nizamut Adawlut	513	543	....	....
Pending .....	...	...	....	....

VI.—*Appeals to the Nizamut Adawlut.*

	1841.	1842.	1843.	1844.
Under trial ..	172	86	....	....
Confirmed	77	32	....	....
Modified or reversed	91	38	....	....

VII.—Cases referred to the Nizamut Adawlut.

	1841.	1842.	1843.	1844.
Under reference	613	666	....	....
Acquitted and discharged	85	70	....	....
Convicted and sentenced	423	515	....	....
Returned	23	12	....	....

VIII.—Crimes against Persons under reference to the Nizamut Adawlut.

	1841.	1842.	1843.	1844.
Murder	427	354	....	....
Homicide, not amounting to Murder .....	...	3	....	....
Dacoitée	87	111	....	....
River ditto .....	...	3	....	....
Highway Robbery	17	8	....	....
Burglary	31	13	....	....
Theft	44	48	....	....
Affray	8	11	....	....
Assault	4	12	....	....
Arson	1	1	....	....
Suttee	2	....	....	....
Miscellaneous	92	102	....	....

IX.—Prisoners in the Jails.

	1841.	1842.	1843.	1844.
Under sentence, { Labour in irons, 7 years of which are unexpired	2,792	3,035	...	....
{ Ditto ditto, of which less than 7 years are unexpired	13,206	12,526	....	....
{ Labour with irons, redeemable by fine	1,829	2,456	....	....
{ Imprisonment without labour, with or without fine	1,525	1,373	....	....
Total	19,352	19,390	...	....

X.—Ordinary Periods of Cases Referred to the Nizamut Adawlut.

	From Apprehension to Commitment.	From Commitment to Reference.	Transmission.	From Receipt of Reference to Sentence.	Total from Apprehension.
1841	Days. 41	Days. 52	Days. 12	Days. 18	Days. 123
1842	44	41	9	12	106

CRIMINAL JUSTICE: MADRAS GOVERNMENT.

The Returns for Criminal Offenders from Madras are for half-yearly periods, a practice which will be discontinued for the future. They embrace returns from the Village Police Courts, which do not form part of the returns from the other Presidencies. The Village Police Officer (Native) can imprison for a few hours only, or put into the stocks. The District Police Officer (Native) can fine to the amount of three rupees (six shillings), or confine for twenty-four hours with or without labour, and flog under the authority of the Magistrate. The power of the Magistracy and Judges of the several courts is shown by the punishments inflicted. It would not appear from the returns that the very important permission to appeal in criminal cases is in operation under the Madras Government. The returns, like those of Bengal and Agra, are destitute of the table affording a compendious view of the criminal business of all the courts; there are not any tables of the number of prisoners in the jails; none of the ordinary period of cases before the Foujdarry Adawlut; nor tables of crimes, and of course no tables of appeals. On the other hand, the business of the several courts and the punishments adjudged are given with a detailed perspicuity superior to that in the returns from the other Presidencies.

The sentences of death are given only for the second half of 1842 to the first half of 1844, both inclusive, a period of two years. The number was 84, and the offenders before the several courts for these periods (excluding the Village Courts,) were 271,842, the sentences of death therefore were 0·031 per cent., or one in 3,236 offenders; a singular approximation to the proportions under the Bengal and Bombay Courts.

In the period under review no prisoners were condemned to imprisonment for life.

I.—*Village Police.*

	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Summoned	8,072	6,942	5,614	3,849	3,886	4,513	....
Acquitted {		1,525	1,171	725	761	568	....
		....	1,809	1,188	743	837	692	....
Punished	4,738	4,583	3,231	2,385	2,288	3,253	....

II. <i>District Police.</i>	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Summoned and de- pending 1st July	58,697	55,756	60,129	51,055	65,378	60,841	....	....
Acquitted, after in- vestigation	19,649	19,371	20,379	18,020	21,198	19,901	....	....
Discharged, upon Razanamah, &c.	22,140	19,851	22,443	20,449	24,513	22,716	....	....
Punished, without re- ference to Magistrate	14,572	13,909	15,312	13,532	17,120	15,171	....	....
Punished, after re- ference to Magistrate	1,349	1,221	1,154	1,217	1,552	1,619	....	....
Total disposed of by District Police	57,710	54,358	59,288	53,218	62,283	59,407	....	....
Total disposed of by the Magistrates	..	25	....	....	....	....	....	....
Depending	987	1,373	841	337	1,095	1,434	....	....

III. <i>Magistracy.</i>	1841.		1842.		1843.		1844.	
	1	2	1	2	1	2	1	2
Summoned, and under Examination	4,388	4,042	4,063	2,995	3,956	4,655	....	....
Acquitted	2,039	2,101	1,574	1,265	1,727	2,081	....	....
Discharged, on Razana- mah, or Dismissed	843	586	972	442	636	890	....	....
Convicted	1,462	1,341	1,400	1,161	1,470	1,5	....	....
Total disposed	4,344	4,028	3,946	2,868	3,833	4,540	....	....
Depending	44	14	117	127	123	115	....	....

IV. <i>Criminal Courts.</i>	1841.	1842.		1843.		1844.	
	2nd Half.	1st Half.	2	1	2	1	2
Accused	5,417	2,920	5,157	2,811	2,950	3,333	....
Released unconditionally	1,055	975	1,214	910	991	1,161	....
„ on security	68	85	71	92	77	95	....
Detained for ditto	120	86	93	107	71	78	....
Convicted and punished	987	761	912	776	854	910	....
Committed to trial	773	800	702	696	734	935	....
Under examination	110	201	159	198	217	149	....
Escaped	....	....	....	....	....	1	....
Died	2	10	6	6	6	4	....
Admitted as approvers	2	1	....	1	....	....	....
Punished in another case	....	1	....	....	....	....	....

V.—Courts of Circuit.

	1841.	1842.		1843.		1844.	
	2nd Half.	1st Half.	2	1	2	1	2
Accused	702	988	582	851	949	1,137	....
Released unconditionally....	187	390	158	253	224	333	....
„ on security	82	67	61	95	62	111	....
Convicted and punished	252	318	189	336	323	397	....
Returned to Criminal Judge	11	10	11	19	15	13	....
Referred to Foujdarry } Adawlut	147	186	112	111	138	143	....
Postponed	12	6	42	13	180	122	....
Otherwise disposed of	11	6	8	23	3	13	....
Died .....	....	5	1	1	4	5	....

VI.—Foujdarry Adawlut.

	1841.	1842.		1843.		1844.	
	2nd Half.	1st Half.	2	1	2	1	2
Accused	176	160	167	94	144	158	....
Released unconditionally	29	31	33	8	25	35	....
„ on security	15	....	9	1	3	21	....
Convicted	107	119	121	68	111	85	....
Remaining	23	9	....	15	1	6	....
Otherwise disposed of	2	1	4	....	3	....	....
Insane .....	....	....	....	1	1	1	....
Died .....	....	....	....	1	....	....	....

VII.—Punishments—Native Magistrates.

	Village Police.								District Police.							
	1841.		1842.		1843.		1844.		1841.		1842.		1843.		1844.	
	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.
Confined in Village } Choultry	2,531	1,603	1,656	2,177	..	..	..	..	..	..	..	..	..	..
Do. in the Stocks..	650	502	632	775	..	..	..	93	99	120	144	..	..	..
Fined	11,379	10,316	13,120	11,432	..	..	..	..
Confined in Choul- } try with or with } out labour	4,835	4,222	5,211	5,035	..	..	..	..
Flogged with au- } thority of magis- } trates	141	112	121	129	..	..	..	..

CRIMINAL JUSTICE: BOMBAY GOVERNMENT.

The Criminal Returns from the Bombay Criminal Courts have the great advantage over the returns from the other Presidencies of being preceded by a table giving a compendious view of the criminal business of all the courts, followed by detailed returns of the business before each class of courts. They comprise also tables of appeals, and returns of prisoners in jails; but want the table of the ordinary periods of cases referred to the Nizamut Adawlut, and the returns of crimes met with in the returns from the Agra Government; the returns from the minor courts for the year 1844 are imperfect, and the appeal cases before the Nizamut Adawlut for 1844 are not filled in. As under the Bengal Government, the number of offenders apprehended had considerably increased from 46,946 in 1842 to 60,504 in 1844. The total number of prisoners tried in the years 1843 and 1844 was 113,080, and of this number 40 were condemned to death, being 0.035 per cent., or one in 2,827 offenders; a singular approximation to the proportions under the Bengal Government.

The very great importance of permitting appeals in criminal cases is manifested in 90 sentences being annulled and 89 mitigated in 1843, out of a total number of 1,021 sentences appealed or called for; nor would it appear that there is great risk of the Nizamut Adawlut being overwhelmed by appeals, since the 1,021 cases out of 27,100 convictions in 1843, in all the courts, was only 3.76 per cent., or one appeal in 26½ convictions.

1.—General View.

	1841.		1842.		1843.	1844.
	1	2	1	2		
Persons under trial	23,422	23,524	52,576	60,504
Remaining	773	1,050	....	....
Total	24,195	24,574		....
Acquitted	11,378	11,245	22,314	26,414
Convicted	11,865	12,111	25,553	28,441
Otherwise disposed of	1,287	....
Discharged on security	1,235
Imprisoned in default	136
Banished the Zillah	58
Committed to Sessions Court	2,536	3,022
Deaths and Escapes	2	7	....	32
Depending	1,050	711	866	7,166
Total	24,195	24,574	52,576	60,504

II.—*Tried by District Police.*

	1841.		1842.		1843.	1844.
	1	2	1	2		
Acquitted	9,330	8,942	...	....
Convicted	9,387	9,369	21,434	23,763
Remaining	584	314	....	....
Total	19,301	19,125	....	....

III.—*Magistrates and Assistants.*

	1841.		1842.		1843.	1844.
	1	2	1	2		
Acquitted	1,539	1,799	....	....
Convicted	1,805	1,953	4,139	4,678
Remaining	291	183	....	....
Total	3,635	3,935	....	....

IV.—*Sessions Judges and Assistants.*

	1841.		1842.		1843.	1844.
	1	2	1	2		
Otherwise disposed of	10	....
Acquitted	409	504	961	950
Convicted	673	789	1,344	1,611
Remaining	175	214	229	457
Referred to Nizamut	205	226
Total	1,257	1,507	2,749	3,251
Deaths and Escapes	2	7	....	7
Grand Total	24,195	24,574	2,749	3,258

V.—*Operation of Nizamut Adawlut.*

	1841.		1842.		1843.	1844.
	1	2	1	2		
Acquitted	22	18
Committed	183	204
Otherwise disposed of	4
Total	205	226

VI.— <i>Nizamut Adawlut Appeal Cases.</i>			VII.— <i>Sentences by District and Village Police Officers.</i>		
	1844.	1843.		1843.	1844.
Petitions rejected	588	Imprisonment, One Month and under, with or without Fine	21,434	....
Sentences confirmed	254			
Ditto mitigated	89			
Ditto annulled	90			
Total	1,021			

VIII.— <i>Sentences by Magistrates and their Assistants.</i>			IX.— <i>Sentences by Sessions Judges.</i>		
	1843.	1844.		1843.	1844.
Imprisonment, 9 to 12 mths	382	....	Imprisonment, 5 to 7 yrs	88	....
Ditto, 6 to 9 months	323	....	Ditto, 3 to 5 years.....	218	....
Ditto, 3 to 6 months	809	....	Ditto, 1 year and under	1,038	....
Ditto, 3 months and under	2,615	....	Total	1,344	....
Flogged and discharged	10	....		
Total.....	4,139	....		

X.— <i>Sentences by the Nizamut Adawlut.</i>			XI.— <i>Number of Convicts in Jails.</i>		
	1843.	1844.		1843.	1844.
Death	19	21	Imprisoned for life	221	245
Transportation	67	45	Ditto, 10 to 14 years	240	253
Imprisonment for life	4	8	Ditto, 7 to 10 years	716	689
Ditto, 10 to 14 years	8	13	Ditto, less than 7 years	3,537	3,916
Ditto, 7 to 10 years	37	75	Total on 31st Dec. 1843	4,714	5,103
Ditto, less than 7 years	48	42	Deaths in the year .....	....	299
Otherwise disposed of ....	....	4			
Total.....	183	208			

Report on the Medical Relief to the Parochial Poor of Scotland, under the former Poor Law. By DR. ALISON, *Edinburgh.*

[Read before the Statistical Section of the British Association at Southampton, September, 1846.]

As an important supplement to the statements which I have at different times made to this section, in proof of the inadequacy and inefficacy of the chiefly voluntary system of relief of the poor, heretofore adopted in Scotland, I propose to lay before the section an abstract of the information which has been collected, by means of a small association formed for the purpose, from the medical practitioners throughout Scotland, in regard to the extent and kind of *medical relief* hitherto granted to the sick poor who are unable to provide such assistance for themselves.

I regard this as a very important test of the efficacy or inefficacy of the voluntary system of charity in a country like this, where property is adequately protected, and society so constituted, that the intercourse of the higher with the lower orders of society is very limited. The objections which have been chiefly urged against the expediency of a more liberal administration of the Poor Law in Scotland, have been of late years almost exclusively confined to the alleged effect of an adequate and known provision on the *character* of those who are to be the recipients. It has been very generally proclaimed that it is the apprehension of this injurious effect—not any objection to the pecuniary tax—which has excited the opposition to the lately-proposed improvements of the Poor Law. At the same time it has been generally admitted, that this objection does not lie against *medical relief* to the sick poor; because it is very justly said, no man can be induced to fall ill, or even to neglect the ordinary precautions against sickness or injury, merely by the knowledge that in that event, and only then, medical or surgical assistance is provided for him. Dr. Chalmers in particular insists much on this distinction; professing his approbation of assessments for all poverty resulting from sickness or injuries, and taking his stand against assessments for “general indigence,” such as old age or death of parents, on the ground of alleged injury to character above stated.

But if it be found in practice, that this distinction has not been observed, and that the voluntary system of charity has proved, up to this day, *equally inefficient with a view to those objects which are admitted to be unexceptionable*, as to those which are of disputed character, implying that the administrators of the public charity, although they possessed the power of raising the requisite funds, by assessments or otherwise, have not exercised it to attain those objects, I think we are justified in charging the inefficiency on the system itself, and in inferring, that the voluntary system offers no security, in such a country as this, for the fulfilment even of those duties which are universally recognized as imposed on the higher classes of society by the sufferings of their brethren in the lower ranks of life. And I can now prove by unquestionable statements of fact, that the parsimony of the late administration of the Scottish Poor Laws, has been at least as

strikingly conspicuous in regard to the *sick* poor, as in regard to any other description of poverty.

I have great pleasure in using the word *late*, in reference to this subject; there is a clause in the Poor Law Bill lately passed for Scotland, *requiring* of the parochial boards to provide “medical relief, cordials, and other comforts for the sick poor, to such an extent as may appear reasonable and expedient;” and as the provisions of that Act farther secure, that this expediency is to be judged of, not by those parochial boards only, but likewise by the board of supervision in Edinburgh, composed of men who have no personal interest in the matter, and to whom an expeditious method of appeal from any parish, free of expense, is provided; and farther, that this board shall publish annually a statement of the provision made for the poor, and of *their condition* throughout Scotland.

I hope and believe that, whether the provisions of the Bill shall prove, in other respects, as efficient as might be hoped, or not, the information contained in the following paper, and which has been already communicated to that board will have the effect of correcting, in future, that very irregular and generally defective kind of voluntary relief *to the sick poor* which has hitherto prevailed; and which may certainly be characterized as both unjust towards the charitably disposed persons of the higher ranks, and inadequate towards this large class of the objects of charity.

In regard to Edinburgh, it is sufficient to quote the words of the Commissioners of Inquiry into the Scotch Poor Law:—

“In none of the parishes of Edinburgh is there any provision for medical relief from the poor funds, except as regards the in-door paupers of the charity workhouse.”

That Report mentions likewise the dispensaries, destitute sick societies, and other institutions *supported by voluntary contributions*, “by which aid is given in Edinburgh, as in all the large and many of the smaller towns;” but this kind of relief, for an object admitted to be a duty incumbent on all, is open obviously to these objections,—1st, That it is obtained only from a portion of the public—the uncharitable are relieved of it at the expense of the charitable. 2ndly, That it is irregular, and often quite inadequate, as in the following instances stated by myself to the Commissioners in 1844:—

“In Edinburgh, for 30 years before 1815, there was a public dispensary, but it was opened only twice a week, and it was no part of the duty of the medical officers to attend the sick poor at home. Any medical aid which the sick poor had at home was *private charity* on the part of the *medical men*. Since then, this duty has been undertaken by several dispensaries; but the assistance given in this way is not nearly so regular nor effectual as it ought to be. During the present epidemic, many of the young men, on whom the duty of visiting chiefly devolves, have been deterred from attending the dispensaries by the fear of having their studies interrupted by attacks of fever. I saw a man lately, the father of a family, just dead of this yellow fever; his widow assured me that she had sent *ten times* to different dispensaries for advice during his illness, and *had received none*. In the Canongate, the dispensary aid to the sick poor *came to an abrupt close in the middle of the epidemic*, in consequence of the

death, by fever, of one of the medical officers who had acted as treasurer*."

As there are now in Edinburgh under the operation of the new Poor Law Act *ten* duly qualified and paid medical officers appointed to take charge of the sick paupers (occasional and permanent,) in the different districts, we may hope that such cause of complaint will not again occur; but we may fully expect to see, in this part of the working of the law, in this as in other large towns, evidence of the wisdom and justice of the provision originally introduced into the Act, and afterwards abandoned, which *required* the different parishes of towns to form combinations for the relief of the poor,—a provision the policy of which seems to be sufficiently indicated by the fact, easily proved statistically in this as in other large towns,—that the greater number of the rich inhabitants congregate together at one extremity of the town, and, therefore, in one or two parishes, while the greater number of the poor, dependent on them, and often attracted to the town by their expenditure, live at the other extremity, and in a different parish.

In regard to Glasgow, where the system of district relief by paid medical attendants has been acted on for some time, I have not such information as to recent changes, as to justify my making any communication to the Association.

Information, more or less complete, on the subject of the medical relief hitherto given to sick paupers, has been received from *forty towns*, (exclusive of Edinburgh and Glasgow,) and by means of one hundred and eight returns, received up to February 10, 1846.

I. *Amount of required Medical Relief heretofore afforded to Sick Paupers.*

The amount of *required* medical relief supplied by the parochial authorities in these forty towns has been *almost nothing*, as will appear from the following statements.

1st. In *sixteen* towns it has been *absolutely nothing* from those authorities; and in most of them there is no dispensary, nor any relief of this kind afforded by voluntary subscriptions. The names of these sixteen towns are as follows:—

Ayr	Giovan	Kircaldy	Peterhead
Banff	Jedburgh	Leith	Rothsay
Elgin	Kelso	Montrose	Stirling
Forres	Kirkintilloch	Perth	Thurso

2ndly. In the remainder, trifling *occasional payments* only have been made.

The following are nearly the whole of the cases in which the occasional payments have been specified:—

In Ardrrossan, Keith, Hamilton, and Kircudbright, an occasional payment, never exceeding a few shillings, has been given in particular instances.

In a few places sums of money have occasionally been paid to medical men during the prevalence of epidemics; for example,—

10*l.* was allowed to the professional men in Campbelltown during the epidemic Typhus Fever, which raged there in 1843.

* Report and Appendix, Vol. III., p. 907.

10*l.* was also allowed, for the same reason, in Kirkiuttilloch, in the year 1844, but by a private individual.

In Dundee, also during the existence of epidemic fever, 5*l.* was allowed to each of six dispensary surgeons.

In a few instances, a parish,—as in Aberdeen, the parish of Old Machar,—gives a contribution to the dispensary for attendance upon their paupers; in this case it amounts to 2*l.* per annum.

3rdly. In *four* towns, it appears that a small allowance is made for drugs; these are Breehin, Haddington, Irvine, and Keith.

These are *all* the *particular instances* of outlay and remuneration, by the parochial authorities, which have been stated.

II. *Recent Remuneration*, (chiefly in anticipation of the New Poor Law Act).

In some few places, chiefly within the last few years, some remuneration has been allowed by the parish authorities to medical practitioners: the instances of this kind which have been reported are as follow:—

1st. *Alloa*—10*l.* is allowed for professional attendance in this town, the poor being permitted to *select* their own attendant.

2ndly. *Dunbar*—6*l.* 6*s.* has been allowed to one medical man, for which he also supplies the drugs, &c., which he uses.

3dly. *Dundee*—3*s.* 6*d.* per week is paid by the parish for such of the paupers as are received into the infirmary as patients.

4thly. *Dunfermline*—20*l.* per annum, along with the price of drugs employed, has since 1841 been allowed to a surgeon for attending the sick poor.

5thly. *Greenock*—Three district surgeons have had 25*l.* per annum, for five years, for attendance on the sick poor.

6thly. In *Kilmarnock*, for three years, 10*l.* each has been paid to the three medical officers, for visiting the sick poor.

7thly. In *Wick*, since 1844, 15*l.* has been divided between two of the medical officers, and drugs supplied besides.

8thly. In *Dumfries*, 10*l.* has been allowed to one medical man, for the last ten years, for professional attendance on the sick poor.

III. *Unrequited Professional Labour*.

The estimated *money value* of their professional unrequited labour bestowed on sick paupers is stated by twenty-five gentlemen, and ranges from 5*l.* to 220*l.*; the average of the whole is 40*l.* 5*s.* 7*d.*

IV. *Furnishing Food, Necessaries, &c.*

To the inquiry whether the medical attendant has ever had occasion to give wine, food, clothing, and other necessities to the sick paupers during his professional attendance, eighty-nine answers have been given,—eighty-three in the affirmative and six in the negative,—showing, according to this return, that upwards of 90 per cent. of medical men, in their attendance on paupers, are in the habit of contributing to them of their substance, as well as giving them their gratuitous professional services.

New arrangements under the Poor Law Bill have been made in several of these towns, but no alteration or improvement has as yet

taken place in *thirty-three* out of the forty towns brought under review.

V. *Infirmaries and Dispensaries.*

As exhibiting the professional service that is made available to the public in the larger towns, inquiry was made regarding the constitution of the existing infirmaries and dispensaries, and the following information has been obtained. The remuneration here brought under review arises almost entirely from *voluntary contributions and from endowments.*

INFIRMARIES.

No.	Place.	Beds.	Medical Staff.	Remuneration.
1.	Aberdeen	270	Four Officers, £45 each	£180
2.	Ayr	40	A House Surgeon, at	60
3.	Dumfries	80	2 Physicians, at £20—2 Surgeons, at £25.	90
4.	Dundee	120	2 Officers, £30 each	60
5.	Elgin	60	2 Ditto, £50 each	100
6.	Greenock	100 .....	..... No remuneration.	
7.	Kelso	See under	Dispensaries.	
8.	Montrose	60	1 Medical Officer, at	50
9.	Perth	84	2 Officers, £20 each	40

DISPENSARIES.

No.	Place.	No. of Patients per annum.	Medical Staff.	Remuneration.
1.	Aberdeen	4,000	6 Surgeons, £20 each	£120
2.	Ayr	700	Out-Patients of Hospital.	
3.	Dumfries	609	2 Surgeons, £5 each	10
4.	Dundee	3,500	{ 3 Ditto, with £20 each, with a proposed } addition of £15	105
5.	Elgin	See under	Infirmary.	
6.	Forres	600		
7.	Jedburgh .....	.....	1 Officer, at £40, and drugs	40
8.	Kelso	1,090	{ Senior Officer, per annum £5 5s., and 1s. } per visit for country visits	5l. 5s.
9.	Kilmarnock	500	3 Officers and Apothecary, at £10 each	40
10.	Leith	2,800	9 Officers, unpaid; 1 Surgeon, with house and	40
11.	Montrose	480	Out-Patients of Infirmary and Lunatic Asylum.	
12.	Perth	1,000	2 Officers, £10 each	20
13.	Stirling	450	{ 2 Officers, £10 each, and 1s. per mile for } country visits	20

The Association have obtained 325 returns to the queries which they have circulated among practitioners *in the country districts* of Scotland. These returns are from 257 parishes or districts and 32 counties. When summed up, they afford the following information:—

Of the 325 reporters, 305 furnish us with information upon the amount of professional remuneration which they have hitherto received for their attendance on the parochial poor.

Out of these 305 medical practitioners, 94 have received *some remuneration* for their attendance and professional outlay.

Of these 94 practitioners, 39 have received this remuneration annually, in sums varying from a few shillings for drugs and outlay simply, up to 20*l.*, as payment for both drugs and medical advice and attendance; 13 of these 39 have been paid sums upwards of 5*l.*; 26

have been paid sums below 5*l.* ; 9 of them receive annually only 1*l.*, or sums of a few shillings only.

Of the 94 remunerated medical men, 23 have not received any regular annual sum, but have had bestowed upon them on one or more occasions (and particularly as a recompense for their labour and outlay during visits of epidemic sickness) payments varying from 20*l.* (which one of the 23 received) down to 3*s.* This last sum is noted in two cases. In one of these two instances this 3*s.* was the sole remuneration received by a practitioner during 12 years' attendance on a number of paupers, averaging 70 constant and 13 occasional ; and in the other case it was given for professional attendance on passing paupers of other parishes ; while nothing had been received by the same practitioner for attendance during 21 years on the *resident* paupers of his district, amounting to 44 constantly on the roll : 14 out of the 23 thus remunerated have received sums under 5*l.*

Out of the 94 remunerated medical men, 10 are paid by the bounty of private individuals in sums varying from 5*l.* and upwards. The largest annual sum so given (60*l.*) is paid by a nobleman in the north. The next largest of these sums (40*l.*) is from a landed proprietor for attending all the poor (parochial and others) on his own estate. The receiver of it adds that he has often to travel 40 miles to see these poor patients, and the poverty of the people is such that they sometimes cannot furnish him with any refreshment after such toil.

Of the 305 practitioners that have sent in reports, 211, or *above 60 per cent.*, have *never received any remuneration of any kind whatever for their professional attendance and outlay upon the parochial poor, or for the drugs which they have required to give them.* And in many of the cases included in these 211 reports the number of poor was very great. Thus one gentleman has attended 400 paupers for 8 years, and never received one item of payment for either professional advice or drugs. Another has attended for 7 years 350 pauper families without ever receiving remuneration in any shape for professional advice and medicines, and some of his patients are separated from him 30 miles, with the most wretched roads intervening. He moderately calculates his direct loss from these calls upon his time and purse as amounting to 70*l.* annually.

Out of 305 who have reported, 208 farther state that they have had occasion, in addition, to give from their own limited stores *wine, food, clothes, or other necessities to sick paupers* during their professional attendance on them. Others report that they have themselves been repeatedly driven to beg such necessities for their pauper patients from the more wealthy and fortunate people in the neighbourhood.

Many of those who are thus called upon to give their time and substance to the parochial poor during sickness complain that they are, notwithstanding, assessed in the same way as others for poor-rates, and obliged to pay tolls, &c., for their distant pauper visits.

Some farther state that, on these distant visits, generally they can find no accommodation at the houses of the poor, if obliged to wait (as in cases of labour and severe sickness), and the doctor must then be at the expense of keeping himself and his horse at an inn.

Their attendance on the poor, by withdrawing them from their homes, not unfrequently obliges them to lose and forego paying-cases.

In the small badly-ventilated houses of their poorer patients they encounter far more than in higher practice the personal danger of infection, and several report that they have been laid off work for long intervals with severe and dangerous attacks of fever, &c., caught in attendance on pauper patients afflicted with the same disease.

Several of the reporters complain of the inattention hitherto paid to paupers in sickness by the parochial authorities, and of the difficulty, or generally the utter impossibility, of obtaining any kind of remuneration, even for direct professional outlay. In most cases in which such remuneration was asked by the medical attendants on the parochial poor it has been absolutely refused. One of the reporters states that he has known the "Session" sell the effects of a pauper after his death and appropriate the proceeds, without listening to the unrequited claims of the doctor.

One hundred and thirty-six of the returns contain a more or less definite estimate, in money value, of the amount of the unrequited professional labour which the reporters have in time past bestowed upon the paupers in their district. These medical men had been, on an average, 10 years in practice. The sum total given by these 136 medical men to the poor, in the way of gratuitous advice and professional outlay, is calculated by themselves to amount to 34,447*l.*, or each on average has bestowed in this way about 253*l.* upon the parochial poor of his district. Most of these practitioners seem to have founded their calculations on the supposition that the average medical attendance, outlay, and drugs, required for each pauper for the year, might be valued at about 4*s.*

Two hundred and forty-six have replied to the query, "How far may any patient reside from the house of their medical attendant?" In one hundred and three instances they are reported as all included within a distance of 5 miles. In eighty-nine instances the greatest distance varies from 5 to 10 miles. In forty-three instances it varies from 10 to 20 miles. In eight instances it is as high as from 20 to 30 miles; and in three instances it extends to 40 miles.

In five cases only, out of the 325 returns, are midwifery cases, vaccinations, and surgical cases, paid for separately, as in England.

Two hundred and twenty-four have replied to the question, "Would it, in your opinion, promote the benevolent objects of the Act if the poor had the power of applying to any of the medical men in their district, instead of being always compelled to resort to such as have been appointed for them by the Parochial Boards?" Out of these 224, 187 reply in the affirmative, and 42 in the negative.

Since the above Report was drawn up, a considerable number of additional returns have been received by the Association, but as the facts mentioned in these returns seem in no respect to alter any of the general statements in the above Report, the Association have considered it unnecessary to add to the present summary the further details thus furnished to them.

On the Duration of Life in the Members of the Several Professions. By WILLIAM A. GUY, M.D., *Cantab.*; *Fellow of the Royal College of Physicians*; *Professor of Forensic Medicine, King's College*; *Physician to King's College Hospital*; *Honorary Secretary to the Statistical Society, &c.*

[Read before the Statistical Section of the British Association for the Advancement of Science, 11th September, 1846.]

THE object of the present communication is to turn to account such facts, gleaned from the Annual Register, as have not already been employed in a former Essay*. The facts in question consist of the ages at death of the members of the several professions, classified as follows,—army, navy, clergy, lawyers, medical men, fine arts, literature, and science, to which are added persons engaged in trade and commerce.

A few words of explanation may be necessary, in respect of these several classes. Under the head “army and navy,” are comprised only officers of those two professions; the “lawyers” consist, with few exceptions, of barristers; the “medical men” of physicians and surgeons, with a few general practitioners, who have attained to eminence in their profession; under the title “fine arts” are included architects, painters, engravers, sculptors, musicians, actors of celebrity, and members of other professions, more nearly allied to the fine arts than to the so-called learned professions; the persons engaged in trade and commerce, consist of merchants and tradesmen who have succeeded in earning a place in an obituary.

The ages at death were taken without selection or exclusion, except of deaths by accident or violence; and, as in the case of all the classes, the obituary extends over the same period of 85 years, (from 1758 to 1843,) and the facts are numerous; it is believed that the averages will prove near approximations to the true durations of life. The subject of the Essay will be further illustrated by facts derived from other sources.

The numbers of facts on which the several averages are based, are as follow:—army, 617; navy, 378; army and navy, 995; clergy, 963; lawyers, 312; medical men, 260; learned professions, 1535; fine arts, &c. 255; English literature and science, 401; foreign literature and science, 274; English and Foreign, 675; trade and commerce, 538; aristocracy, as stated in the former Essay, 1239; gentry, 1787; members of royal houses, (males,) 102.

The following tables correspond in arrangement and order with those of the two former Essays. The first table presents the facts on which the subsequent calculations are founded; the second and third tables give the same facts in quinquennial and decennial periods.

* “On the Duration of Life among the English Gentry, &c.”—*Statistical Journal*, March, 1846, vol. ix., p. 37.

TABLE I.

Age.	Army.	Navy.	Clergy.	Law.	Physic.	Fine Arts.	Literature and Science.		Trade and Commerce.
							English.	Foreign.	
21	5	1	....	....	1	1	2	....	2
22	7	3	....	....	1	0	....	....	3
23	3	1	....	....	1	3	....	....	2
24	5	0	....	....	0	1	....	....	3
25	1	0	2	3	0	1	3	1	2
26	8	1	2	3	1	2	1	....	1
27	5	2	3	2	1	3	4	....	2
28	7	3	4	5	5	2	1	....	3
29	3	1	3	1	0	2	1	1	2
30	4	0	4	4	6	1	4	1	0
31	5	1	5	0	1	2	1	....	4
32	4	1	5	2	2	0	2	2	1
33	2	0	9	2	2	3	....	3	6
34	5	2	6	1	2	1	2	1	3
35	4	1	4	0	2	1	6	2	1
36	1	2	3	2	0	1	....	1	4
37	3	0	4	5	3	0	2	....	1
38	1	3	12	1	1	0	2	2	5
39	2	1	3	2	4	6	1	1	2
40	5	7	10	3	4	3	3	2	6
41	4	0	0	2	1	1	1	4	1
42	3	4	16	2	3	2	6	4	7
43	6	4	7	3	3	0	5	6	4
44	4	5	6	0	1	4	4	....	3
45	5	2	8	6	3	4	3	5	5
46	6	7	4	3	4	3	5	3	4
47	6	1	6	5	1	5	5	....	3
48	3	3	4	3	4	2	5	1	2
49	7	3	3	0	0	3	4	2	1
50	6	5	10	2	2	2	4	4	8
51	4	3	6	5	2	1	3	4	1
52	11	7	8	4	1	4	4	2	5
53	19	4	9	3	2	6	5	4	9
54	7	0	8	2	2	5	5	2	8
55	9	5	9	7	5	1	5	2	4
56	3	4	8	3	4	3	5	7	11
57	11	6	7	1	5	4	2	4	3
58	11	6	13	3	5	2	6	4	5
59	9	5	6	5	1	2	3	2	9
60	15	5	19	6	4	3	10	10	7
61	3	4	12	2	2	3	5	7	11
62	11	5	17	4	3	7	9	6	10
63	16	3	20	4	5	5	10	7	17
64	9	9	13	4	8	7	10	6	14
65	10	11	17	3	5	4	3	7	10
66	10	3	27	4	10	6	8	4	4
67	10	11	17	7	3	3	13	4	11
68	13	7	30	10	10	6	12	3	15
69	12	9	12	5	5	3	10	7	10
70	20	21	21	14	4	14	15	7	19

TABLE I.—continued.

[illegible]

TABLE II.

Age.	Army.	Navy.	Clergy.	Law.	Physic.	Fine Arts.	Literature and Science.		Trade and Commerce.
							English.	Foreign.	
21—25	21	5	2	3	3	6	5	1	17
26—30	27	7	16	15	13	10	11	2	18
31—35	20	5	29	5	9	7	11	8	15
36—40	12	13	32	13	12	10	8	6	18
41—45	22	15	37	13	11	11	19	19	20
46—50	33	19	32	13	11	15	23	10	18
51—55	50	19	40	21	12	17	22	14	27
56—60	54	26	53	18	19	19	26	27	40
61—65	54	32	79	22	23	26	42	33	62
66—70	65	56	107	40	32	37	58	30	59
71—75	72	72	155	43	33	28	61	43	72
76—80	78	46	159	41	35	26	46	33	71
81—85	59	32	129	36	30	23	49	30	53
86—90	31	17	60	22	9	16	21	12	27
91—95	16	6	26	5	4	4	8	4	20
96—100 } and upwards }	3	8*	7	2	4	0	1	2	11
Maximum	98	102	108	100	100	94	97	98	112*

* Also 1 at 108.

TABLE III.

Age.	Army.	Navy.	Clergy.	Law.	Physic.	Fine Arts.	Literature and Science.		Trade and Commerce.
							English.	Foreign.	
21—30	48	12	18	18	16	16	16	3	25
31—40	32	18	61	18	21	17	19	14	33
41—50	55	34	69	26	22	26	42	29	38
51—60	104	45	93	39	31	36	48	41	67
61—70	119	88	186	62	55	63	100	63	121
71—80	150	118	314	84	68	54	107	76	143
81—90	90	49	189	58	39	39	70	42	80
91—100 } and upwards }	19	14	33	7	8	4	9	6	31
	617	378	963	312	260	255	411	274	538

TABLE IV.

Age.	Army.	Navy.	Army and Navy.	Clergy.	Law.	Physic.	Learned Professions.	Fine Arts.	Literature and Science.		Trade and Commerce.
									Eng.	For.	
26 and upwards...	65·27	67·63	66·18	68·31	66·20	65·36	67·70	64·42	66·49	62·78	68·11
31 ..	67·07	68·40	67·59	69·49	68·14	67·31	68·86	65·96	67·55	66·72	68·74
41 ..	68·97	70·01	69·38	71·02	70·20	70·23	71·24	68·21	69·15	68·42	71·01
51 ..	71·53	72·62	71·90	74·04	72·78	72·95	73·62	71·15	72·10	71·44	72·32

The preceding table gives the average age of such members of the several professions as had attained, or outlived, the specified ages.

If we limit our comparison to the last line of the table, which is, for obvious reasons, most worthy of confidence, and extend that comparison by admitting the averages derived from the same source, and for the same period of time, published in the two former Essays, we obtain the following results.

England (males)	75.64	Army and Navy	71.99
Gentry	74.00	Peerage and Baronetage	71.69
Learned Professions	73.62	Literature and Science (Foreign)	71.44
Trade and Commerce	72.32	Fine Arts, &c.	71.15
Literature and Science (English)	72.10	Royal Houses (males)	68.54

These averages lend confirmation to the statements recently advanced, to the effect that the duration of life among the higher classes is shorter than that of the mass of the people of England, and of the provident members of the labouring class. Descending in the scale of rank from the aristocracy and gentry, to those next below them in social position, we encounter a series of averages, ranging from 73.62 to 71.15, the former falling short by less than half a year of the duration of life among the English gentry, the latter being less by about the same fraction of a year than the average age attained by the aristocracy.

The difference between the duration of life in the members of the learned professions and those devoted to the fine arts, amounting to 2.47 years, is such a slight difference as might be expected in men having a similar command of the comforts and luxuries of life, and differing but little in their mode of living. Had the difference been more considerable, it would have led us to distrust the character or sufficiency of the facts from which the averages are deduced; as it is, the results may be looked upon as affording a confirmation of both.

I now proceed to examine more minutely the elements which make up the groups comprised in the preceding table.

The *army* and *navy* respectively attained the following averages,—

	Army.		Navy.		Army and Navy.
26 and upwards	65.27	.....	67.63	.....	66.18
31 „ 	67.07	.....	68.40	.....	67.59
41 „ 	68.97	.....	70.01	.....	69.38
51 „ 	71.58	.....	72.62	.....	71.99

From whatever age, therefore, the average is calculated, the navy will be found to have a slight advantage, varying from 2.36 years, if calculated for 26 years and upwards, to 1.04 if calculated for 51 years and upwards. It would, therefore, appear that of the two professions the navy is the more healthy.

The averages for the *learned professions* are shown in the following table:—

	Clergy.		Lawyers.		Physicians, &c.		Learned Professions.
26 and upwards....	68.81	.....	66.20	.....	65.36	.....	67.70
31 „ 	69.49	.....	68.14	.....	67.31	.....	68.86
41 „ 	71.82	.....	70.20	.....	70.23	.....	71.24
51 „ 	74.04	.....	72.78	.....	72.95	.....	73.62

The clergy, it will be seen, attain a higher average age, in whatever way the calculation is made, than the members of the other

learned professions. They have the advantage of more than one year, an advantage not to be wondered at, when it is considered how much larger a proportion of clergymen reside in the country, how much less they are exposed to fatigue and danger of infection than their brethren of the medical profession, and that they do not lead the sedentary life which falls to the lot of the lawyer. When these things are taken into account, the advantage of little more than one year possessed by the clergy will excite some surprise. The still smaller advantage which they claim over the gentry, to which class so large a portion of their profession belong, is still more remarkable, and not undeserving of attention.

The physician would appear, from the last two lines of the table, to possess a slight advantage over the barrister, but it is too small to justify any lengthened inquiry as to its cause. Whether the risks to which the medical man is exposed in the practice of his profession, are counterbalanced by the disadvantages attending a more sedentary pursuit, is a question which may be thrown out for discussion. On a more close examination of the table, it would appear that the lawyer has an advantage in the early period of life, which he is condemned to lose in old age. Is it not at an early period of life that the medical man encounters the greatest risk, at a later period of life that the sedentary habits of the lawyer make themselves felt?

A smaller collection of facts, for which I am indebted to the kindness of Mr. Whishaw, gives for the members of the legal profession a somewhat shorter duration of life. This obituary extends from the years 1833 to the year 1845, and comprises those who have attained to positions of eminence in their profession. The exact number of facts is 216.

	Annual Register. (1758 to 1843).	Mr. Whishaw. (1833 to 1845).
26 and upwards.....	66·20	62·11
31 " 	68·14	64·09
41 " 	70·20	67·35
51 " 	72·78	70·89

Professor Casper, of Berlin, has examined the duration of life among medical men, (chiefly Germans,) and has obtained results much less favourable than those derived from the Annual Register*. It is probable, however, that under the title "*médecins*" he has comprised a lower grade of the profession than those whose deaths are recorded in the obituaries of the Annual Register. Though anatomists, veterinary surgeons, naturalists, and medical men who occupy themselves solely with literary pursuits are excluded, the tables probably comprise a large number of men answering to the general practitioners of England, among whom there is reason to believe that the duration of life is greatly shortened by exposure and fatigue. The results are embodied in the following table.

	Annual Register.	Casper's Table.
26 and upwards.....	65·36	58·00
31 " 	67·31	59·27
41 " 	70·23	63·82
51 " 	72·95	68·21

* "*Annales d'Hygiène*," 1834, Tome vi.

The mixed class of literary and scientific persons may be advantageously contrasted with persons devoted solely to literature, whose ages at death I have obtained in 356 instances from Chambers' English Literature. The two orders of facts do not admit of exact comparison, as those gleaned from the Annual Register extend over a period of 85 years, while those obtained from Chambers' English Literature comprise our oldest as well as our most modern authors. The difference, however, is not very considerable, as will be seen in the following table, to which, for the purpose of comparison, is added a column showing the average age of chemists, 41 in number, from Thomson's History of Chemistry.

	Literature and Science.		Literature.	Chemists.
	English.	Foreign.	(Chambers.)	(Thomson.)
26 and upwards....	66.49	62.78	63.05	65.70
31 " 	67.55	66.72	63.34	66.67
41 " 	69.15	68.42	65.60	66.67
51 " 	72.10	71.44	69.14	69.51

M. Benoiston de Chateauneuf, in a paper published in the 25th volume of the *Annales d'Hygiène*, has recorded the ages at death of the members of the three French Academies (the Académie Française, the Académie des Inscriptions, and the Académie des Sciences) from the year 1635 to the year 1793. He has also given the age at death of the members of the French Institute, from its foundation in 1795*. The following table presents the results of these figures, side by side with those already given.

	Annual Register.		French	French
	English.	Foreign.	Academies.	Institute.
26 and upwards....	66.49	62.78	68.84	—
31 " 	67.55	66.72	69.20	68.51
41 " 	69.15	68.42	70.42	69.14
51 " 	72.10	71.44	72.47	70.38

The average age of admission into the Académie Française was 46 years 2 months; into the Academy of Inscriptions, 46 years; and into the Academy of Sciences, 41 years 3 months. It is probable, therefore, that the admissions at the earlier ages being few in number, and the deaths proportionately few, the average age of all above 26 and 31 years will be somewhat exaggerated. Considering the different sources from which the facts are derived, a difference of two years between the highest and lowest average age of all dying above 40 and 50 respectively is not considerable, and may be regarded as a confirmation of the value of the several results considered as approximations to the true duration of life of the literary and scientific class.

I am enabled to make a similar comparison between the class designated "Fine Arts," &c., and one constituent of that class—painters. The facts, amounting to 485, and comprising the painters of all schools and of every period, were obtained from a table compiled by Major James Bell†.

* The number of deaths in the case of the Academies is 571, and in that of the Institute 186.

† I have been favoured by Mr. Brent with the ages at death of 876 painters, abstracted from "Pinkerton's Dictionary," edited by Fuseli. The results of this collection of facts differ so widely from those of Major Bell's Tables, that I place them, for the present, in a note, hoping to be able to verify or correct them, as the

	Fine Arts, &c.	Painters.
26 and upwards.....	64.42	63.86
31 " 	65.96	64.46
41 " 	68.21	67.15
51 " 	71.15	70.96

The difference is here very inconsiderable, the greatest being only a year and a half, the least a small fraction of a year.

The subject of this paper admits of being pursued much more into detail, and would doubtless repay any labour that might be bestowed upon it.

It would also be interesting and instructive, to institute a more extensive comparison between the present averages and those obtained by other statistes at home and abroad; but it has appeared more in accordance with the objects of the Society, to limit the present communication chiefly to facts not to be found in any other publication.

The following table presents a more detailed summary of results than the one already given. The averages are limited to persons dying aged 51 and upwards, and, where not otherwise stated, must be understood to be taken from the Annual Register.

Profession, &c.	Average Age.	Profession, &c.	Average Age.
England (males, Mr. Farr).....	75.64	Army	71.58
Clergy	74.64	Literature and Science (Foreign)....	71.44
Gentry	71.00	Fine Arts, &c.	71.15
Medical Men	72.95	Painters (Major Bell's Table).....	70.96
Lawyers	72.78	Chemists (Thomson)	69.51
Navy	72.62	English Literature (Chambers)	69.14
Trade and Commerce	72.32	Members of Royal Houses (males) 68.54	
Literature and Science (English)....	72.10	Kings of England	64.12
Aristocracy	71.69		

It is scarcely necessary to remind the reader that of the foregoing averages the only ones which admit of strict comparison as extending over the same period of time are those deduced from facts gleaned from the obituaries of the Annual Register. The average for England is deduced from recent facts, but those for the classes of painters, literary men, and chemists, as well as for the Kings of England, extend over a considerable term of years. Between the most favourable average, namely, that for the clergy, and the least favourable, namely, that for members of royal houses, both of which are deduced from the facts collected from the obituaries of the Annual Register, there is a difference of five and a half years.

case may be, by a future reference to the Dictionary. The average ages at death are as follows:—26 and upwards, 50.34; 31 and upwards, 50.79; 41 and upwards, 52.16; 51 and upwards, 53.25.

I am also indebted to Mr. Brent for the ages at death of a very different class of men from any comprised in the tables, namely, Pugilists, 53 in number. The results, though somewhat out of place here, may be briefly stated. They are as follow:—26 and upwards, 47.00; 31 and upwards, 50.78; 41 and upwards, 57.62; 51 and upwards, 65.53.

Statistics of the German Universities, from a recent work on German University Education by DR. PERRY, of Göttingen. By JAMES HEYWOOD, Esq., F.R.S.

[Read before the Statistical Section of the British Association at Cambridge, 19th June, 1845.]

DR. PERRY, the compiler of the following statistical details, was educated in the Hanoverian University of Göttingen, where he took the degree of Doctor of Philosophy, and he now resides in the University town of Bonn on the Rhine, living in the society of the professors, so that he is necessarily well acquainted with the interior of German University life.

Ample materials exist in Germany on the statistics of the Universities, and especially on the six Universities of Prussia. M. Koch, a German gentleman, has published three thick octavo volumes on the laws and condition of the Prussian Universities, and there is an annual work on the German Universities, published by Wuttke, under the name of "*Jahrbuch der deutschen Universitäten*," which is rich in academical details.

One reason of the general interest felt in the state of these Universities may probably be found in the custom which prevails of inviting highly distinguished men from one University to accept professorial offices in another University, thus translating them, as it were, into places of higher dignity and larger emolument.

Each University in Germany becomes desirous to possess the greatest possible amount of professorial talent, well knowing that students will thus be attracted in greater numbers to its lecture rooms.

There are twenty-three Universities in Germany, and four in German Switzerland, which may thus be classified:—

	Students.	Endowment per annum.	Fees.	Numbers of sessional courses of Lectures.
PRUSSIA.		£	£	
Berlin . . .	2,140	16,000	12,700	343
Bonn . . .	700	14,300	5,240	220
Halle . . .	700	10,600	4,047	191
Breslau . . .	700	10,900	4,974	223
Greifswalde . .	300	7,768	560	110
Königsberg . .	400	9,230	1,400	151
WURTEMBERG.				
Tübingen . . .	850	9,300	.....	130
BAVARIA.				
Munich . . .	1,330	.....	.....	134
Erlangen . . .	303	.....	.....	107
Würzburg . . .	485	.....	.....	104
SAXONY.				
Leipsic . . .	900	.....	.....	300
HANOVER.				
Göttingen (1844)	640	.....	.....	260
BADEN.				
Heidelberg . .	698	chiefly for Law.	.....	210
Freiburg . . .	273	.....	.....	107

	Students.	Numbers of sessional courses of Lectures.
SAXE-WEIMAR.		
Jena	420	178
HESSE-DARMSTADT.		
Giessen	446	151
HESSE-CASSEL.		
Marburg	294	187

There are also three Universities in Austria, at Vienna, Prague, and Grätz, one in Strasburg, one at Rostock in Mecklenburg, and one at Kiel in Holstein.

Altogether it may be computed, that there are at least 1,500 professors in Germany, and the number of the students at the different Universities may be about 15,000.

Dr. Perry thus describes the career of students for the clerical, legal, and medical professions.

The career of a Divinity Student for the Lutheran Church.

At the head of the Protestant Church in Prussia, is the King, who exercises supreme control, through his minister for ecclesiastical affairs; under him, there is in each province of Prussia, a consistory, the members of which are appointed by Government, and which has the control over the ecclesiastical affairs of the whole province. Each province is divided into local government-districts (*Regierungs-Bezirke*), and over each of these districts a consistorial councillor is appointed, who attends to the external affairs of the church, but has no spiritual authority. He is usually chosen from the clergy, but as councillor ceases to act as a spiritual person. Each Government-district is subdivided into circles, (containing about twenty parishes each), over which a superintendent, selected from the parish ministers, is appointed. The duty of the superintendent is to inform the Consistory, from time to time, of the state of the churches within the sphere of his operations. He has, however, no *spiritual* authority over the other parish ministers.

The theological student who desires to enter the Lutheran Church, must first complete his three years' course at the University, and then announce himself for examination to the superintendent of his district. The superintendent gives notice of this application to the members of the consistory, who propose to the candidate certain theological subjects, on which he is required to prepare separate treatises, viz., two treatises on the exegesis of the Old and New Testaments; a catechetical lecture, in which the candidate has to show his ability in giving popular instruction on doctrinal subjects; a sermon; and lastly, a treatise on ecclesiastical history. Should these meet with the approbation of the consistory, the candidate is then examined in the various branches of theological science. He is also called upon during this latter examination, to write an extempore treatise on some theological subject proposed to him by the examiners. If he passes this examination creditably, he then receives the license to preach," but he cannot administer the sacraments. He is still called a Candidate, and is expected to make himself acquainted with the practical duties of his profession, by assisting the clergyman of a parish, or by giving religious instruction at a public school.

As soon as he feels himself qualified to undertake the cure of souls, which is generally about two or three years after his first examination, he signifies his intention to enter on the second examination. This latter differs but little in the scientific portion of it from the former, except that it is more severe, and that it embraces a greater number of subjects.

After the second examination the candidate is entitled to offer himself for any vacant pulpit in the Lutheran Church of his country; the ministers of which, as is well known, are generally chosen and paid by the congregations. In some parishes, however, the living is in the gift of a lay patron, or of the State.

Before his induction into a living, the candidate, if a Lutheran, must declare his belief in the Augsburg confession, and in the Apostle's and Nicene creeds. If he belong to the Reformed Church, he subscribes the Formulary of Dordrecht.

Career of a Student for the Roman Catholic Priesthood.

The young Catholic who wishes to become a priest, must also pass three years at the University. He must then enter an episcopal seminary*, in which he passes several years under the immediate superintendence of the directors, and learns the practical part of his profession. When he has remained long enough in this institution, which is not unlike a monastery in its interior arrangements, he is appointed to be a Chaplain by the dean and chapter of the diocese, then a "Vicarius", and lastly a Parish Priest.

Career of a Law Student†.

The law student is not subjected to any examination at the University; nor is it necessary for him to take a degree. The State makes three principal requirements of the young lawyer; first, that he

* Also called an "Alumnat." The modern Church reformer, John Ronge, who has been the cause of a serious defection from the Roman Catholic church of Germany, gives a description of the "Alumnat" in which he had passed the usual period of preparation for the priesthood. According to him, the time of the students of this institution was divided in the following manner:

From 5½ to 6 A.M.	Matins.
6 .. 7 ..	Breviary-prayers.
7 .. 7½ ..	Mass.
7½ .. 8 ..	Breakfast.
8 .. 10 ..	Lectures.
10 .. 10¾ ..	Free.
10¾ .. 11½ ..	Private study.
11½ .. 12 ..	Breviary-prayers.

"Before and after dinner, there were prayers in the chapel occupying about ¾ of an hour. Then followed ¼ or ½ an hour of Breviary-prayers.

From 2 to 4 P.M.	Lectures.
4 .. 4¾ ..	Free.
4¾ .. 7 ..	Private study.

"After supper, ½ an hour of prayers in the chapel, and an hour for Breviary-prayers. The prayers were in Latin, and always the same. On Sundays and holydays the time devoted to these prayers was still greater. Twice in the week the student (Alumnus) might go out a few hours. During meals there is no talking."—Vide *Rechtfertigung*, (vindication of his separation from the Church of Rome). By JOHANNES RONGE, page 94.

† The following account applies chiefly to the Prussian States.

should be able to maintain himself until such a time as he may reasonably expect to be appointed to an office with a sufficient salary; secondly, that he should have studied three years at a University; and thirdly, that he should have attended the necessary courses of lectures as a student. If he can answer these requirements he then applies to the superior court (Obergericht) of the province in which he wishes for employment, to be appointed an "Auscultator," or lawyer's assistant. His application must be written in Latin, and accompanied by his college testimonials and a curriculum vitæ. A time is then fixed for the state examination, which is held before Commissioners appointed by Government. The principal subjects of this first examination are the Institutions, the Pandects, the History of Roman Law, Canonical Law, German Law, Criminal Law, the Law of Actions, Feudal Law, and the Philosophy of Law. If he "passes," he is sworn in as an assistant, and generally attaches himself to some inferior court; where under the direction of some experienced lawyer, he makes himself acquainted with the practical part of his profession.

Having passed one or two years as an Auscultator, the young lawyer petitions the same tribunal as before, to be admitted to the higher examination, which is given both in writing and *visâ voce*. To fail in either is fatal to the candidate's pretensions. This second examination—which is conducted by two councillors selected from the members of the superior court—relates chiefly to the laws of the candidate's own country or province; but also embraces the subjects enumerated above. As a preliminary step to this examination, the Auscultator is required to send in a report of some case, as a proof of his ability and industry. The two examiners send word to the Minister of Justice of the manner in which the candidate has acquitted himself; and if their opinion be favourable, the minister appoints him a "Referendarius." The Referendarius is eligible without further examination to fill the office of judge in the inferior court of a smaller town. But if he desires to become an officer of the inferior court of a large town, he has to pass a "third examination." And if he aspires to a seat as councillor in the superior courts, he must go to Berlin, where his learning and abilities are severely tested by the examination-commission. Previous to the final examination the candidate sends in written "opinions" on some difficult case. Having passed this final ordeal (Schluss-examen) he becomes an Assessor, with a salary; and afterwards councillor, and member of a superior court.

Career of a Medical Student.

The Medical Student is very thoroughly and severely examined by the Medical Faculty when he takes his degree, which he is obliged to do before he leaves the University. He has subsequently to undergo the state examination before a Commission in the capital; and may then begin to practise.

Career of a Schoolmaster.

The young philologist is examined by the Philosophical Faculty before he leaves the University. He then spends a year in the exercise of his profession at some public school, where he gives instruction gratis. After which, he is eligible to a Mastership at a public school, for

which, small as are its emoluments* and onerous its duties, he has often to wait many years.

Summary of the Professors in different Faculties at the principal German Universities.

BERLIN has in the Theological Faculty, 5 professors in ordinary, 5 extraordinary, and 4 privat. docentes; in the Philosophical Faculty 28 professors in ordinary, 28 extraordinary, and 25 privat. docentes; in the Faculty of Law, 7 professors in ordinary, 3 extraordinary, and 7 privat. docentes; in the Medical Faculty, 15 professors in ordinary, 10 extraordinary, and 15 privat. docentes.

BOXX has in the Catholic Theological Faculty, 4 professors in ordinary, 1 extraordinary, and 1 privat. docens; in the Protestant Theological Faculty, 3 professors in ordinary, 1 extraordinary, and 2 privat. docentes; in the Philosophical Faculty, 19 professors in ordinary, 7 extraordinary, and 11 privat. docentes; in the Faculty of Law, 6 professors in ordinary, 2 extraordinary, and 2 privat. docentes; in the Medical Faculty, 8 professors in ordinary, 1 extraordinary, and 2 privat. docentes.

HALLE has in the Theological Faculty, 7 professors in ordinary, and 4 extraordinary; in the Philosophical Faculty, 19 professors in ordinary, 5 extraordinary, and 13 privat. docentes; in the Faculty of Law, 7 professors in ordinary, 1 extraordinary, and 1 privat. docens; in the Medical Faculty, 5 professors in ordinary, and 4 privat. docentes.

BRESLAU has in the Catholic Theological Faculty, 5 professors in ordinary, and 1 privat. docens; in the Protestant Theological Faculty, 4 professors in ordinary, 1 extraordinary, and 4 privat. docentes; in the Philosophical Faculty, 16 professors in ordinary, 7 extraordinary, and 15 privat. docentes; in the Faculty of Laws, 4 professors in ordinary, 2 extraordinary, and 3 privat. docentes; in the Medical Faculty, 10 professors in ordinary, 1 extraordinary, and 7 privat. docentes.

GRIEFSWALDE has 34 professors of all kinds.

KÖNIGSBERG has in the Theological Faculty, 5 professors in ordinary, and 3 privat. docentes; in the Philosophical Faculty, 13 professors in ordinary, 4 extraordinary, and 13 privat. docentes; in the Faculty of Laws, 7 professors in ordinary; in the Medical Faculty, 4 professors in ordinary, 3 extraordinary, and 1 privat. docens.

TÜBINGEN, (*Württemberg*.) has 62 professors.

MUNICH, (*Bararia*.) has in the Theological Faculty, 5 professors in ordinary, and 1 extraordinary; in the Philosophical Faculty, 20 professors in ordinary, 2 extraordinary, and 5 privat. docentes; in the Faculty of Laws, 15 professors in ordinary, 1 extraordinary, and 1 privat.

* Six hundred dollars (90*L.*) a year is reckoned a large salary for the upper masters at a Prussian public school.

docens; in the Medical Faculty, 11 professors in ordinary, 2 extraordinary, and 3 privat. docentes.

ERLANGEN, (*Bavaria*,) has in the Theological Faculty, 5 professors in ordinary, 3 extraordinary, and 2 privat. docentes; in the Philosophical Faculty, 11 professors in ordinary, 2 extraordinary, and 5 privat. docentes; in the Faculty of Laws, 4 professors in ordinary, and 1 extraordinary; in the Medical Faculty, 7 professors in ordinary, 1 extraordinary, and 3 privat. docentes.

WÜRZBURG, (*Bavaria*.) has 39 professors.

LEIPSIK, (*Saxony*.) has in the Theological Faculty, 6 professors in ordinary, 4 extraordinary, and 7 privat. docentes; in the Philosophical Faculty, 12 professors in ordinary, 15 extraordinary, and 5 privat. docentes; in the Faculty of Laws, 7 professors in ordinary, 5 extraordinary, and 6 privat. docentes; in the Medical Faculty, 11 professors in ordinary, 9 extraordinary, and 10 privat. docentes.

GÖTTINGEN, (*Hanover*.) has in the Theological Faculty, 4 professors in ordinary, 2 extraordinary, and 2 privat. docentes; in the Philosophical Faculty, 9 professors in ordinary, 11 extraordinary, and 22 privat. docentes; in the Faculty of Laws, 6 professors in ordinary, 2 extraordinary, and 10 privat. docentes; in the Medical Faculty, 9 professors in ordinary, 5 extraordinary, and 5 privat. docentes.

HEIDELBERG, (*Baden*.) has in the Theological Faculty, 5 professors in ordinary, 1 extraordinary, and 1 privat. docens; in the Philosophical Faculty, 14 professors in ordinary, 5 extraordinary, and 8 privat. docentes; in the Faculty of Laws, 5 professors in ordinary, 4 extraordinary, and 6 privat. docentes; in the Medical Faculty, 5 professors in ordinary, 3 extraordinary, and 5 privat. docentes.

JENA, (*Saxe-Weimar*.) has in the Theological Faculty, 5 professors in ordinary, 2 extraordinary, and 1 privat. docens; in the Philosophical Faculty, 14 professors in ordinary, 11 extraordinary, and 4 privat. docentes; in the Faculty of Laws, 7 professors in ordinary, 4 extraordinary, and 3 privat. docentes; in the Medical Faculty, 5 professors in ordinary, and 4 extraordinary.

GIESSEN, (*Hesse-Darmstadt*.) 47 professors.

MARBURG, (*Hesse-Cassel*.) 50 professors.

FREIBURG, (*Baden*.) has 39 professors.

Austria has Universities in Vienna, Prague, and Grätz (*Styria*): but their constitution and character are very different from, and generally inferior to those of Western Germany.

The internal management of a German University is carried on by a senate, composed, in some places, of all the professors in ordinary, and in others, of a certain number chosen by and from them, with a rector, who continues in office for one year, at their head. There is besides a resident principal or curator of each University, appointed by the Government, who receives the reports of the plans of study and the lists of lectures for each session, and who has to forward them to the Minister of Public Instruction for his sanction. It is

the duty of the curator to suggest improvements in the University, and to propose suitable men to fill the professorial chairs, which from time to time fall vacant, and the Government appointments of new professors are generally made on his recommendation. He has also full authority to suppress all political societies among the students, and to act as the chief preserver of order in the University.

Each Faculty (of Medicine, Law, Theology, &c.) has its own dean, elected by the professors in ordinary, who are all themselves appointed by royal patents, and who form a sort of committee to provide the students with proper lectures.

Very distinguished professors are rare even in Germany, and in consequence are so highly prized, that they possess practically great liberty in the expression of their opinions, inasmuch that the professors have been considered to enjoy a similar share of freedom in Germany with that of the newspaper-press in England.

Students are accustomed in Germany to take copious notes of all that the professor says to them from his chair; indeed, their note-books contain reports, as it were, more or less accurate, of his observations, and are preserved to be got up for an examination, as text-books of the subjects to which they refer.

It may be a serious question, whether the information to be derived from these juvenile manuscript remembrancers can be as precise as the published treatises of learned men on similar topics, and certainly far more labour is entailed on the student in preparing himself from closely-written manuscript notes, but there is still great unwillingness on the part of the German students to give up this custom, and time will be required for the introduction of improvements into their somewhat antiquated system, which probably took its rise at a period when printed books were either unknown, or were both scarce and expensive.

A general idea of the extent and variety of instruction offered to the students of the most important University in Germany may be obtained from the following abridgment of the syllabus of lectures proposed for the winter session of 1844-45, in the University at Berlin.

Each course may occupy from two to six hours (generally five) in the week, throughout the entire half year. Where more than one course, therefore, on the same subject is announced, they indicate as many different professors. It is hardly necessary to add that where a sufficient number of students do not signify their intention of attending, the lecture is not given. "*Tres faciunt collegium.*" In many cases, this quorum is not obtained.

The following Berlin professors have obtained a reputation in England: Neander, Hengstenberg, and Twisten, as theologians; Schelling, as a philosopher; Eucke, as an astronomer; Bopp, as an Oriental scholar; the Brothers Grimm, as German antiquarians; Böckh and Zumpt, as classical scholars and grammarians; Müller, as a Physiologist Mitscherlich, as a chemist; and Ranke and von Raumer, as historians.

THEOLOGY.

Introduction to the Old Testament, two courses.
 Origin of the Pentateuch.
 The book of Genesis.
 The Psalms.
 Exegetical conversations.
 Prophecies of Isaiah, two courses.
 The Gospel of St. John. Neander.
 History of the passion and resurrection of Christ.
 The Epistle to the Hebrews.
 The Epistle to the Romans.
 Doctrinal portions of the New Testament.
 Ecclesiastical history, five courses.
 History of Christian dogmas. Neander.
 The systems of the Ebionites and Gnostics.
 History of modern theology.
 Ecclesiastical antiquities.
 On the doctrines of Christianity, two courses.
 Principles of Christian morality.
 Principles of theological morality. Neander.
 Theological conversatorium, under the direction of Neander.
 Pastoral theology.
 Ecclesiastical statistics.
 Homiletic seminary.

JURISPRUDENCE.

General view of jurisprudence, two courses.
 History of modern jurisprudence.
 Law of nature, two courses.
 Institutions and antiquities of Roman law, three courses.
 History of Roman Law.
 The Pandects; with exercises in the decision of cases.
 Law of inheritance, two courses.
 Exposition of difficult passages in the Pandects, two courses.
 The old German tribunals.
 History of German law.
 German rights of persons, three courses.
 The Sachsenspiegel*.
 Sources of German constitutional law.
 German State-law (Staats-recht), three courses.
 On the Provincial Chambers.
 Constitution of the German diet.
 Ecclesiastical law, three courses.
 Criminal law, five courses.

Criminal actions, two courses.
 The jury system.
 General and Prussian law of actions.
 On the practice of law.
 International law, four courses.
 Laws of Prussia, two courses.
 History of French and Rhenish law.
 Art of law-giving, according to Plato.

MEDICINE.

General view of the medical art.
 Application of mathematics to physical science.
 History of the medical art.
 Anatomy of man, Müller.
 General anatomy.
 Anatomy of the organs of sense, Müller.
 Anatomy of the herniæ.
 Osteology.
 Splanchnology.
 Syndesmology.
 Exercises in dissection, Müller.
 Pathologico-anatomical exercises.
 General physiology, two courses.
 Special physiology.
 Comparative physiology of the Infusoria.
 Physiological exercises with microscope.
 Pharmacopœia.
 Pharmacy, with experiments on different animals, two courses, Mitscherlich.
 Medicinal plants.
 Stimulants, Mitscherlich.
 Fermenting and intoxicating liquors.
 True principles of the Medical art.
 Preservation of health.
 Special dietetics.
 General and special Pathology and Therapeutics, eight courses.
 Syphilitic diseases, two courses.
 Diseases of the mind.
 General surgery, five courses.
 Surgical diagnosis, two courses.
 Wounds, two courses.
 Fractures.
 Diseases of the eye, three courses.
 The teeth.
 Surgical operations on corpses.
 Operations on the eye.
 On bandaging, two courses.
 Theoretical and practical midwifery, eight courses.
 Clinical lectures and exercises in the various hospitals of Berlin, thirteen courses.
 Forensic medicine, three courses.
 Diseases of animals, two courses.

* An old German poem containing much law.

PHILOSOPHY.

Critical introduction to modern philosophy.
 Philosophical problems, with the mode of solution,
 General view of philosophy.
 Logic, seven courses.
 Philosophy of mythology; Schelling.
 Ethics and law of nature.
 Anthropology, three courses.
 Psychology, four courses.
 Metaphysics and philosophy of religion.
 The being of a God.
 Philosophy of ecclesiastical history.
 History of philosophy, four courses.
 Philosophy of history, three courses.
 Philosophy of literature.
 Philosophical conversatorium.
 Ethics of Aristotle.

MATHEMATICS.

Algebra, two courses.
 Theory of numbers.
 Differential and integral calculus, four courses.
 Application of differential calculus to geometry.
 Analytical dynamics.
 Conic sections.
 Geometry and trigonometry, three courses.
 Natural philosophy.
 General history of physics and chemistry.
 Cohesion of bodies.
 Optics, with experiments.
 Physics, with experiments, four courses.
 Meteorology.
 Introduction to medical climatology.
 General geognosy, two courses.
 Experimental chemistry, two courses.
 Animal and vegetable chemistry.
 Chemical composition of the earth's surface.
 Inorganic pharmacy.
 Technical chemistry.
 Rudiments of chemistry, and general chemistry.
 De materia morborum.
 Astronomy, Eneke.
 Zoology, two courses.
 Natural history of the echinodermata.
 Natural history of medicinal animals.
 E.C.ology.
 n to mology.
 Botany, two courses.
 Mineralogy, two courses.

Cry-stallography.

Geology.

Chemical, zoological, mineralogical, and physical, with exercises and conversations (five).

POLITICAL PHILOSOPHY, &c.

General view of political economy, with finance.
 Police.
 History of various systems of national economy.
 National economy, three courses.
 Finance.
 Statistics of Prussian States.
 History of the constitution and government of the European States (von Raumer) two courses.
 Horticulture, agriculture, rearing of domestic animals, with especial reference to the growing of wool, three courses.
 Chemistry applied to manufactures.
 Mechanical technology.

HISTORY AND GEOGRAPHY.

Ancient History
 History of Greece.
 History of Rome.
 Chronology of the Egyptians.
 History of the middle ages.
 Historical literature of the middle ages.
 German history, two courses.
 History of the Prussian States.
 Territorial history of Prussia.
 History of England in the 17th century.
 History of the recent period since the middle of the 18th century, Ranke.
 Historical exercises.
 General description of the earth.
 Geography of ancient Palestine.
 Geography of ancient Greece.
 Topography of ancient Athens.

PRINCIPLES AND HISTORY OF ART.

Esthetics, two courses.
 A view of the History of the Fine Arts since the French Revolution.
 History of Painting from the 5th to the 18th century.
 Select old coins.
 Roman history illustrated by ancient coins.
 History of the coinage of Germany.
 Importance of ancient coins to the study of mythology.
 History of the Prussian coat of arms.
 Numismatic and heraldic exercises.
 Antiquities of art from Ottfr. Müller's *Handbuch*.
 Select antique gems.

Archæological exercises.
 Comparative representation of the most celebrated poems in all languages.
 Philosophy of ancient art.
 The Faust of Göthe.
 Gymnasia and orchestra of the Greeks in connection with their public life.
 Practical exercises in rhetoric.
 Course of musical composition.

PHILOLOGY.

History of Greek Literature, Böckh.
 Greek and Roman Drama.
 Roman antiquities, Zumpt.
 Mythology of the Greeks and Romans.
 Latin grammar, two courses.
 Eschyl's Agamemnon.
 Eschyl's Choephoreæ and Eumenides.
 Demosthenes de Corona, Böckh.
 Isocrates.
 The Trinummi of Plautus, and the Andria of Terence.
 The Menæchmi of Plautus.
 Satires of Persius, Zumpt.
 Annals of Tacitus.
 Literary history of the middle ages and of modern times.
 History of ancient and middle German poetry.

Scandinavian mythology.
 Godfrey of Strasburg's poem, Tristan and Isolde.
 Hartman's poem, Erek: with an introduction to British mythology, W. Grimm.
 Moreto's comedy, El desden con el desden.
 Dante's Divina Commedia.
 Modern Greek language.
 Slavic antiquities, historical and literary.
 Modern Polish poetry.
 Sanscrit grammar, Bopp.
 Select episodes of the Mahâ Bharata, Bopp.
 Sanscrit and Prâkrit languages.
 Hebrew grammar.
 History of Oriental literature.
 Arabic grammar.
 Elements of the Georgian language.
 Chinese literature.
 Chinese grammar.
 Elements of Turkish.
 English language.
 French —
 Italian —
 Spanish —
 Fencing, riding, and dancing masters, are also attached to the University.

The fencing school is a favourite place of resort to the students of all ranks in the German Universities. Prince Albert, while at Bonn, displayed great skill among his youthful contemporaries, in the use of the foil, and the art of fencing has been popular in Germany, ever since the time when the possession of a sword was a mark of gentility. Duels are still occasionally fought with a species of broadsword, the top of the head to the body of both combatants being carefully protected by strong leather guards, so as almost entirely to prevent the possibility of a fatal encounter. Drinking clubs among the students, greatly encourage this singular method of settling what was at first too frequently a mere boyish dispute. Officers are also elected in the more old-fashioned clubs, from the number of duels in which they have been engaged, but fortunately, new clubs have been organized of late years, on a more reasonable basis, and the practice of duelling has in consequence greatly diminished at the best regulated Universities. Smoking, however, is still characteristic of the German students; the pipe is their constant companion in their leisure hours, and they become so much attached to it, that the more talented among them smoke for relaxation, after their long continued and laborious academical exertions.

Table showing the Quantities of Salt Exported from Liverpool during the Twelve years from 1833 to 1844. Computed by BRAITHWAITE POOLE, F.S.S.

In the Years	Tons.	Particulars of Last Year's Exportation.	Tons.
1833	170,400	{ To the Baltic—Denmark, Norway, Sweden, Russia, Prussia, Hamburg, Lubec, Bremen, &c. }	90,033
1834	162,265		
1835	252,877		
1836	232,626		
1837	271,535	To Holland and Belgium	43,622
1838	390,839	To the United States	92,371
1839	378,454	To Canada	36,941
1840	431,705	{ To Africa and other foreign parts of the world }	16,665
1841	360,813		
1842	384,231	{ To England, Ireland, Scotland, Isles of Jersey, Guernsey, and Man. }	149,499
1843	462,840		
1844	429,131		
		Total....	429,131

Average 327,310 tons per annum.

Table showing the quantities of Earthenware and China-ware as conveyed from the Staffordshire Potteries during the Year 1844. Computed by BRAITHWAITE POOLE, F.S.S.

To	Conveyance.	Packages.	Tons.
Liverpool.....	{ By 56 Boats performing 87½ voyages } per week, by Canal	163,800	51,870
ditto	By Railway from Whitmore	2,190	730
Manchester	{ By 6 Boats performing 5½ voyages per } week, by Canal	11,052	3,590
ditto	By Railway from Whitmore	346	100
Chester	{ By ditto, Turnpike Road, and Boat by } Canal	1,872	1,000
London	{ By 18 Boats performing 18 voyages } per week, by Canal	33,696*	10,670
ditto	{ By Railway, including Birmingham } and West of England	5,360	1,340
Birmingham and West of England	{ By 10 Boats performing 10½ voyages } per week, by Canal	19,956	6,000
		238,252	75,210

Formerly the average number of crates contained in a boat was 40, and weight 10 tons; but earthenware is now packed much closer, and the packages are consequently heavier; they are also made proportionably larger, so that the present average number in a boat is 36, and weight 11 tons 8 cwt.

* Some earthenware is now carried in the boats loose, but if packed in crates the total would average 33,696 yearly, as above stated.

Principal Religious Denominations in the United States.

DENOMINATIONS.	Churches, or Con- gregations.	Ministers.	Members, or Commu- nicants.	Population.
Baptists	7,898	4,741	573,702	5,000,000
„ Freewill	981	647	47,217	
„ Seventh-day	48	54	5,000	
„ Six-principle	16	10	2,117	
Catholics	512	562	...	1,300,000
Christians	1,000	800	150,000	300,000
Congregationalists	1,300	1,150	160,000	1,400,000
Dutch Reformed	197	192	22,515	450,000
Episcopalians	950	1,099	55,427	600,090
Friends	500	...	...	100,000
German Reformed	600	180	30,000	...
Jews .....	...	...	...	15,000
Lutherans	750	267	62,266	540,000
Menonites	200	...	30,000	...
Methodists .....	...	10,971	906,363	3,500,000
Moravians, or United Brethren	24	33	5,745	12,000
Mormonites .....	...	...	12,000	12,000
New Jerusalem Church	27	33	...	5,000
Presbyterians	2,807	2,225	271,084	2,175,000
„ Cumberland	500	450	50,000	
„ Associate	183	87	16,000	
„ Reformed	40	20	3,000	
„ Associate Reformed	211	116	12,000	6,000
Shakers	15	45	6,000	
Tunkers	40	40	3,000	
Unitarians	300	200	...	
Universalists	653	317	...	600,000

The above statements respecting the several denominations have been derived chiefly from recent official documents published by the different denominations; but the last column contains rather a vague estimate of the total number of people who are attached to the several different religious persuasions.

PROCEEDINGS OF THE STATISTICAL SOCIETY OF LONDON.

First Ordinary Meeting, 1846-7. Monday, 16th November, 1846.

The following papers were read:—

1. Report of the Proceedings of the Statistical Section of the Southampton Meeting of the British Association for the Advancement of Science. By Joseph Fletcher, Esq., Hon. Sec.
2. Statistics of the Prussian Monarchy. By Bernard Hebel, Esq. F.S.S., Consul-General for Prussia.

MISCELLANEOUS.

STATE OF THE PUBLIC HEALTH IN THE SUMMER QUARTER.

"THE Quarterly Returns are obtained from 115 Districts, sub-divided into 576 Sub-Districts. *Thirty-four* Districts are in the Metropolis, and the remaining 81 Districts comprise, with some agricultural Districts, the principal towns and cities of England. The population was 6,579,693 in 1841."

51,235 deaths were registered in the summer quarter ending September 30th—a number greater by 15,227 than the deaths (36,008) in the corresponding quarter of last year. In the mild winter quarter of this year ending March, 1846, the deaths were nearly 5000 below the average; in the spring quarter (June), the mortality was slightly above the average: intestinal complaints then arose, and becoming epidemic, have been the principal causes of the immense loss of life on record.

The relative salubrity of the hottest season of the seven years, 1839–1846, is displayed in the annexed Table.

	1838	1839	1840	1841	1842	1843	1844	1845	1846
Deaths Registered in the September quarters of 9 years	34,614	37,189	39,337	35,899	39,249	36,815	38,782	36,008	51,235
Deaths which would have been registered if the mortality had been uniform, and the numbers had increased from 1838 at the rate of 1·75 per cent. annually . .	36,191	36,825	37,169	38,125	38,792	39,471	40,162	40,864	41,580
UNHEALTHY SEASONS. Difference above the calculated number . .	..	364	1,868	..	157	..	..	..	9,655
HEALTHY SEASONS. Difference below the calculated number . .	1,577	..	..	2,226	..	2,656	1,380	4,856	..

Respecting the proximate causes of the mortality in London, the weekly tables furnish full information. The deaths in the summer quarter were 10,842 in 1845, and 12,409 in 1846. Of the excess of 1,567 deaths, 1,303 were from diarrhœa, cholera, and dysentery, which proved fatal respectively to 1549, 197, and 75 persons. The mortality by intemperance, delirium tremens, jaundice, liver diseases, and rheumatism was also greater than usual. Inflammatory diseases of the lungs and influenza lay in abeyance, as if the morbid force had directed and expended itself on the digestive organs. No deaths from hydrophobia appears to have been registered in London during the last three summers. The five weeks from July 11th to August 15th, were the unhealthiest; 1,100 deaths, exclusive of those by violence, were registered in the first week of August; the numbers then fell off, and only amounted to 783 on the last week of the thirteen. Upon comparing the facts in the four last columns of the Table, p. 372, it will be seen that young children were the chief sufferers. Indeed the form of the disease, which has long been prevalent in the cities of America, is designated in their bills of mortality *cholera infantum*. The disease also proved fatal to many old people. And some adults died of attacks which could not in their symptoms be distinguished from Asiatic cholera. It was, however, quite evident from the first, that the epidemic had not the characters of that malady which broke out here in the winter of 1832, but was closely allied to the cholera described by Sydenham, which he says lasted a month, and—"eam anni partem, quæ restatam fugientem atque autumnum imminetum complectitur, (unice ac eadem prorsus fide, qua veris primordia hirundines, aut insequentis tempestatis fervorem cuculus,) amare consuevit*."

* Sydenham Opera. Obs. Med. Anni 1669. He also describes the severer epidemic of 1676, "Insueti tempestatis calore evectus."

While the deaths in London were little more than 14 per cent. above the return of 1845, the deaths rose from 25,166 to 38,826—or about 52 per cent. after a correction for increase of population—in the towns and other districts of the kingdom, included in the return. In some of the densely-peopled towns the mortality was doubled. The deaths in the corresponding summer quarters of the past and present year were—in Maidstone 124, and 239; Brighton 219, and 372; Portsea Island 239, and 433; Winchester 89, and 141; Oxford 89, and 194; Northampton 182, and 221; Bedford 182, and 251; Ipswich 119, and 240; Norwich 306, and 451; Plymouth 191, and 279; Clifton 323, and 436; Worcester 106, and 173; Dudley 457, and 744; Walsall 158, and 288; Wolverhampton 439, and 687; Wollstanton and Burslem 164, and 315; Coventry 188, and 300; Nottingham 285, and 469; Lincoln 154, and 246. No such mortality has been witnessed in Birmingham for many years; the deaths in 1845 were 694, in 1846 they amounted to 1,627. In Liverpool and the adjacent district of West Derby the deaths in the summer quarters of 1845 and 1846, were 2,595, and 4,090; in Manchester, and the contiguous districts of Salford and Chorlton, 2,111 persons died in 1845, and 4,248 in 1846. Stockport, Macclesfield, Chester, Blackburn, Preston, Bury, Bolton, Wigan, Prescott, Ashton,—and other districts of Cheshire and Lancashire—suffered to an equal, or a greater extent. The districts of Yorkshire did not escape; 1,039 persons died in Sheffield, where only 445 died in the summer quarter of 1845, and the mortality in any preceding summer since 1838 had never exceeded 647. Huddersfield, Leeds, Hull, and York suffered severely. In Sunderland, Gateshead, Tynemouth, and Newcastle-on-Tyne, 1,172 deaths were recorded in the summer quarter of 1845, and 2,313 in the corresponding quarter of 1846.

Upon the other hand, the mortality of the quarter was below the average in Pontypool and Newtown; but slightly above the average in the other districts of Wales; and generally the country and southern districts suffered comparatively little.

In the above summary, and in Table, page 370, the mortality of the summer quarter of 1846 is compared with the mortality of the same districts in the corresponding seasons of previous years. The proportion which the deaths bear to the population shews the relative mortality of different districts, and is still more important. Thus, at the last census, the population of Anglesea was 38,105, the deaths in the last quarter were 160; the population of Gateshead was 38,747, the deaths in the same quarter 473; the population of Abergavenny and Newtown, 77,000, the deaths 378; the population of Sheffield, 85,000, the deaths 1,039. Again, the population of the seven Welsh districts was 273,000, the deaths in the last quarter 1,465; the population of Manchester and Salford 253,000, the deaths 3,149! The population of the six districts of the South Eastern division was 218,000, the deaths in the last quarter (ending September 30) were 1,458; the population of Liverpool was 223,000, the deaths in the same quarter 2,916!

In the Annual Reports and Quarterly Returns the causes of these differences in the mortality of the several parts of the country and the population have been discussed. The high mortality of towns has been traced to crowded lodgings, dirty dwellings, personal uncleanness, the concentration of unhealthy emanations from narrow streets, without fresh air, water, or sewers. The rapidity of decomposition, and the facility with which all kinds of animal matter become tainted, and run into putrefaction, enable us to understand how, in a summer like the past, in which the temperature was unusually high, the diseases referable to an impure atmosphere should be so prevalent and fatal.

The Seventh Annual Report, 8vo. edition (pp. 330—338) contains some calculations which set in a striking light the extent to which human life and health have hitherto been sacrificed. The calculations have been made with great care; they are based upon the Returns of Deaths for the seven years, 1838-44, and the census taken in 1841, the middle of the period. It appears—to give a few examples of the results—that the annual deaths in the town districts of Manchester to 1,000 males living are 37; in the extra-metropolitan parts of Surrey 19 in 1,000. To take particular ages, the annual mortality of boys under 5 years of age is 48 in Surrey, 148 in Manchester to 1,000 boys living.

Of men of the age of 35 and under 45, the annual mortality is 11 in Surrey, 21 in Manchester to 1,000 living: The enormous difference will be rendered more obvious to some by the simple facts—

Population of the Town Sub-Districts of Manchester in 1841		Deaths registered in the 7 Years 1838—44.
163,856		39,922
Population of the Extra-Metropolitan District of Surrey		23,777
187,868		
Difference		16,145

The population of Surrey exceeded that of Manchester, yet in 7 years 16,000 persons died in Manchester over and above the deaths in Surrey, the mortality in which, from the poverty of the labourer, and slighter degrees of the influences so fatal in Manchester, is higher than it should be. There were 23,523 children under 5 years of age in Surrey, and the deaths of children of that age were 7,361; the children in Manchester were 21,152, the deaths 20,726! In the seven years, 13,362 children in Manchester alone fell a sacrifice to known causes, which, it is believed may be removed to a great extent; and the victims in Liverpool were not less numerous. Other parts, and particularly the *towns* of England, are similarly afflicted.

The returns of the past quarter prove that nothing effectual has been done to put a stop to the disease, suffering, and death in which so many thousands perish. The improvements—chiefly of a showy, superficial, outside character—have not reached the homes and habits of the people. The house and children of a labouring man can only be kept clean and healthy by the assiduous labour of a well-trained industrious wife, as any one who has paid the least attention to the subject is aware. This is overlooked in Lancashire, where the woman is often engaged in labour from home. The consequence is, that thousands, not only of the children, but of the men and women themselves, perish of the diseases formerly so fatal, for the same reason, in barracks, camps, gaols, and ships.

The supply of water, and the removal of refuse from the surface, or of matters in solution and suspension through the sewers, are "simple engineering questions, the success of which," in the words of Mr. Smith, of Deanston, "is certain, while the cost can be estimated on known data." The wealthiest and most populous parish in the metropolis—Marylebone—is an example of the imperfect manner in which these questions are solved in the present state of the law. The parish, on an area of about 1,490 acres, had 14,169 inhabited houses, and 138,164 inhabitants in 1841. The annual value of property rated for the relief of the poor in the same year was £815,279—£57 to each house. Yet a considerable part of the parish is without sewers, or any direct open communication with the sewers. It is said, though the information on this head is imperfect, that half the houses in the parish have cess-pools, many of which remain unemptied from year to year. The vestry, under the Local Act, is empowered "to nominate persons to carry out the *dust, dirt, cinders, or ashes*," yet no effectual arrangements are made for the removal of decaying animal and vegetable matters—the "filth" and "noxious matters," which are really prejudicial to health. The contracts only apply specifically to "ashes," which are innocuous. 897 persons died in the parish last quarter. The condition of other parishes may be conjectured from this specimen.

In the remarks of the Registrars, attention is very properly called to the neglect of parents in procuring proper medical attendance for their children.

The Registrar of Heaton Norris, Stockport, says:—"Of the 120 persons, 53 were children of one year and under; and of these deaths of infants the causes were certified by a medical attendant in only 28 cases. It is to be feared that many at this age are lost for want of medical assistance and care of the mother, who is soon obliged to leave her child in other hands, and go forth to engage in constant and unwholesome toil. The child sickens, and is soothed by opiates."

The Registrar of Hulme, in Chorlton District, near Manchester, observes:—"When we take into consideration that the infants of the poor are, many of them, fed upon innutritious and improper food, and a large portion of them in this district are constantly drugged with narcotics, such as Godfrey's Cordial, paregoric, and, mis-called, infants' preservatives, inducing a morbid and congested state of the primæ viæ: that they live in unhealthy localities, in ill or non-ventilated dwellings, surrounded by an atmosphere pregnant with noxious exhalations, we cease, in some degree, to be surprised (these remote and predisposing causes existing) that, when an epidemic affecting the abdominal viscera prevails, it should prove so extensively fatal, and more particularly when these poor infants, many of them, have not had the

advantage of judicious medical treatment, consequently no chance of recovery. During the last quarter there have been registered very few deaths of children of the higher class of society caused by bowel complaints, they being in a great measure exempt from the predisposing causes before enumerated, and having had the advantage of proper medical assistance. The 298 deaths certified, include many that have been seen only once or twice by regular practitioners, having been previously attended by druggists. Deaths not certified, 88, include those where it has not been convenient to get a medical certificate, and those who have not had attendance during the latter weeks of their illness. Deaths, not certified, where there has been no proper medical aid, 93, include those that have been attended by druggists, or have had no medical assistance whatever."

The Registrar of Deansgate, Manchester, remarks:—"Of the 279 children, the deaths of only 126 were certified, so that 153 died without any proper medical assistance having been procured for them, and of the certified cases a large number were stated in the medical certificates to have been in a hopeless state, having been ill several days or weeks before medical assistance was sought. The chief cause of mortality has been diarrhoea, and this of a very controllable character, when taken early. Here we have 153 children dying in one district alone, in one quarter, without any reasonable attempt having been made to save them; and if the deferred cases were added, the number would probably not fall short of 200. It is difficult to think of this frightful waste of life without feeling that all other circumstances affecting the mortality of large towns dwindle beside it into insignificance. It is, indeed, deeply to be deplored that no proper provision has hitherto been suggested, and carried out for the preservation of the children of the poor. In all Manchester there is but one children's dispensary, and this has but two medical officers. Such institutions should be numerous in large towns, and much good might be effected; but the unfortunate out-door occupation of the women, by causing the withholding of nature's nutriment from the children, is terribly destructive to the latter."

How pitiful is the condition of many thousands of children born in this world! Here, in the most advanced nation of Europe—in one of the largest towns of England—in the midst of a population unmatched for its energy, industry, manufacturing skill—in Manchester, the centre of a victorious agitation for commercial freedom—aspiring to literary culture—where Percival wrote and Dalton lived—*Thirteen Thousand Three Hundred and Sixty-two* children perished in seven years over and above the mortality natural to mankind. These "little children," brought up in unclean dwellings and impure streets—were left alone long days by their mothers, to breathe the subtle, sickly vapours—soothed by opium, a more "cursed" distillation than "hebenon,"—and when assailed by mortal diseases, their stomachs torn, their bodies convulsed, their brains bewildered, left to die without medical aid,—which, like Hope, should "come to all,"—the skilled medical man never being called in at all, or only summoned to witness the death, and sanction the funeral.

Deaths in the Metropolis from all Causes (exclusive of Violent and Sudden Deaths), and from Diarrhoea, Dysentery, and Cholera, in the 13 Weeks of the Summer Quarters, 1845 and 1846.

Number of Weeks.....	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	Total.	
Deaths from all causes, exclusive of violent and sudden deaths..	1845 1846	757 894	756 882	829 1,026	853 976	810 1,063	852 1,100	834 925	821 870	796 875	742 850	804 880	739 819	811 78	10,409 11,943
Deaths from Diarrhoea, Dysentery, and Cholera....	1845 1846	15 76	30 98	30 149	50 187	41 218	50 238	48 180	42 148	38 126	38 87	46 83	38 62	52	518 1,821
Mean Temperature	1845 1846	61.3 65.0	60.9 60.0	59.6 64.9	60.0 62.6	56.3 70.6	59.5 66.5	55.6 61.3	56.5 60.8	57.6 62.6	54.6 61.6	55.8 64.5	55.0 60.3	59.0	57.1 63.1

MORTALITY OF THE COUNTRY.

Quarterly Table of the Mortality in 115 of the Districts of England (including the Principal Towns), showing the Number of Deaths Registered in the Quarters ending September of the Four Years 1843-44-45-46.

Parts of Divisions and Districts.	Population 1841.	Deaths Registered in the Quarters ending Sept. 30th.			
		Years.			
		1843.	1844.	1845.	1846.
<i>Metropolis*.</i>					
West Districts...	361,326	1,664	1,822	1,569	1,815
North Districts...	366,393	2,017	2,293	1,829	2,368
Central Districts...	374,599	2,123	2,190	2,055	2,591
East Districts...	393,247	2,547	2,547	2,637	2,859
South Districts...	479,169	2,920	2,973	2,742	3,136
Total *.....	1,915,104	11,271	11,825	10,842	12,449
<i>South Eastern Division.</i>					
Maidstone.....	32,310	171	160	124	239
Brighton.....	46,742	226	232	219	372
Isle of Wight.....	42,547	149	186	121	178
Portsea Island.....	53,036	327	345	239	433
Winchester.....	23,044	106	97	89	141
Windsor.....	26,502	64	100	77	95
Total.....	218,181	1,043	1,120	860	1,458
<i>South Midland Division.</i>					
St. Albans.....	17,051	65	100	85	114
Wycombe.....	24,150	145	180	141	156
Oxford.....	19,701	95	90	89	194
Northampton.....	28,103	148	162	182	221
Bedford.....	31,767	146	175	182	254
Cambridge.....	24,453	122	133	125	148
Total.....	155,225	719	840	804	1,087
<i>Eastern Division.</i>					
Colchester.....	17,790	76	125	89	127
Ipswich.....	25,244	141	155	119	240
Norwich.....	61,843	392	396	306	451
Yarmouth.....	24,031	107	115	143	196
Total.....	128,921	626	681	657	1,014
<i>South Western Division.</i>					
Devizes.....	22,130	121	81	95	115
Dorchester.....	23,380	134	99	98	116
Exeter.....	31,233	184	160	160	191
St. Thomas.....	47,105	177	210	148	233
Plymouth.....	36,527	182	237	191	279
Redruth.....	48,062	169	419	172	175
Penzance.....	50,190	230	451	166	218
Bath.....	69,332	348	391	335	362
Total.....	327,869	1,545	2,035	1,365	1,689
<i>Western Division.</i>					
Bristol.....	61,298	339	435	347	496
Clifton.....	66,233	287	550	323	436
Stroud.....	38,920	155	185	161	190
Cheltenham.....	40,234	189	191	138	195
Hereford.....	34,127	173	184	171	183
Swansea.....	24,929	153	169	91	169
Worcester.....	27,139	112	189	166	173
Kidderminster.....	29,198	147	167	165	162
Donkey.....	86,048	399	464	467	744
Walsall.....	34,271	169	168	158	288
Wolverhampton.....	89,222	422	523	439	687
Walsingham.....	32,669	172	163	174	315
Birmingham.....	178,187	714	932	664	1,027
Aston.....	50,928	234	316	196	469
Coventry.....	110,928	183	220	188	360
Total.....	775,902	3,829	4,667	3,798	6,284
<i>North Midland Division.</i>					
Leicester.....	50,932	269	339	457	536
Lincoln.....	36,110	171	143	154	246
Nottingham.....	53,089	362	394	285	469
Basford.....	59,634	233	233	272	370
Derby.....	35,915	229	190	181	281
Total.....	234,771	1,264	1,299	1,349	1,902
<i>North Western Division.</i>					
Stockport.....	85,672	459	462	398	609
Macclesfield.....	56,918	329	284	255	424
Great Broughton.....	49,085	231	208	228	342
Chester.....	223,054	1,823	1,952	1,962	2,946
West Derby (adjoining Liverpool).....	8,652	562	692	633	1,144
Blackburn.....	75,091	383	474	382	544
Preston.....	77,189	463	450	458	641
Rochdale.....	60,577	345	316	393	429
Bury.....	77,496	379	380	385	643
Bolton.....	97,519	542	534	594	821
Wigan.....	96,032	417	353	316	611
Prescott.....	43,739	170	174	211	322
Chorlton.....	93,736	710	653	607	1,099
Manchester.....	192,408	1,729	1,442	1,366	2,354
Salford.....	70,228	493	416	438	795
Ashton.....	173,964	943	917	896	1,410
Total.....	1,530,460	9,960	9,617	9,492	15,224
<i>York Division.</i>					
Sheffield.....	85,076	507	433	445	1,039
Huddersfield.....	107,140	525	447	471	716
Halifax.....	109,175	532	458	565	646
Bradford.....	132,164	801	861	933	1,115
Leeds & Hunslet.....	168,957	1,063	997	944	1,369
Hull.....	41,130	276	238	273	487
York.....	47,779	227	247	223	342
Total.....	691,131	3,871	3,761	3,914	5,714
<i>Northern Division.</i>					
Sunderland.....	56,226	291	267	292	475
Gateshead.....	38,747	198	225	165	473
Tynemouth.....	55,625	300	299	282	508
Newcastle-on-Tyne.....	71,850	394	414	423	857
Carlisle.....	36,084	141	161	151	282
Corkermouth.....	15,676	145	146	131	203
Kendal.....	34,694	136	144	147	191
Total.....	328,902	1,608	1,602	1,601	2,989
<i>Welsh Division.</i>					
Abercromby.....	50,834	292	250	254	292
Pontypool.....	25,037	89	97	112	119
Merthyr Tydfil.....	52,864	228	307	303	373
Newtown.....	25,958	110	101	115	86
Wrexham.....	126,452	165	163	166	224
Holywell.....	40,787	156	178	183	211
Anglesey.....	38,105	129	122	149	160
Total.....	273,127	1,079	1,308	1,316	1,465
<i>Butto, exclusive of the Metropolis.)</i>	4,664,589	25,544	26,957	25,166	38,826
Grand Total.....	6,579,693	36,815	38,782	36,908	51,235

Wandsworth District is included in the return for the Metropolis.

* The last quarter in the Metropolis ended September 26th, 1846.

† The former District of Leeds is now divided into the districts of *Leeds* and *Hunslet*, both included in the present return.

MORTALITY OF THE METROPOLIS.

A Table of the Mortality in the Metropolis, showing the Number of Deaths from all Causes, in the Quarters ending September of the Four Years, 1843-44-45-46.

CAUSES OF DEATH.	Quarters ending September.				CAUSES OF DEATH.	Quarters ending September.			
	1843.	1844.	1845.	1846.		1843.	1844.	1845.	1846.
ALL CAUSES.....	11,271	11,825	10,842	12,409	III. Cephalitis.....	139	164	159	165
SPECIFIED CAUSES.....	11,238	11,797	10,802	12,364	Hydrocephalus.....	465	413	421	448
I. Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	2,656	3,243	2,409	3,334	Apoplexy.....	186	237	266	273
SPORADIC DISEASES.					Paralysis.....	175	166	184	221
II. Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	1,224	1,239	1,111	1,411	Convulsions.....	700	721	608	513
III. Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	1,883	1,929	1,897	1,914	Tetanus.....	5	9	4	2
IV. Diseases of the Lungs and of the other Organs of Respiration.....	2,750	2,782	2,669	2,761	Chorea.....	..	2	4	1
V. Diseases of the Heart and Blood Vessels.....	285	326	371	351	Epilepsy.....	49	54	78	74
VI. Diseases of the Stomach, Liver, and other Organs of Digestion.....	1,446	1,027	1,099	1,356	Insanity.....	13	19	8	25
VII. Diseases of the Kidneys, &c.....	67	90	101	138	Delirium Tremens.....	32	22	33	44
VIII. Childbirth, Diseases of the Uterus, &c.....	114	124	120	132	Disease of Brain, &c.....	119	122	132	148
IX. Rheumatism, Diseases of the Bones, Joints, &c.....	78	84	71	116	IV. Laryngitis.....	10	7	17	25
X. Diseases of the Skin, Cellular Tissue, &c.....	17	12	27	29	Ounsey.....	24	32	5	14
XI. Old Age.....	679	648	569	487	Bronchitis.....	82	140	191	271
XII. Violence, Privation, and Intemperance.....	339	233	358	435	Pleurisy.....	17	23	28	30
I. Small Pox.....	75	556	76	51	Pneumonia.....	545	617	600	399
Measles.....	352	255	688	78	Hydrothorax.....	45	38	46	32
Scarlatina.....	548	1,020	191	208	Asthma.....	116	104	101	95
Hoopings Cough.....	336	167	385	359	Phthisis or Consumption.....	1,781	1,681	1,558	1,784
Croup.....	76	76	75	66	V. Disease of Lungs, &c.....	130	140	123	111
Thrush.....	106	120	105	113	Pericarditis.....	13	28	12	20
Diarrhoea.....	455	414	449	1,549	Aneurism.....	11	8	11	10
Dysentery.....	121	44	43	75	Disease of Heart, &c.....	261	290	348	321
Cholera.....	60	47	26	197	Teething.....	275	263	217	138
Influenza.....	18	8	8	6	Gastritis.....	309	15	18	28
Ague.....	5	6	6	1	Enteritis.....	264	212	212	213
Remittent Fever.....	5	13	8	12	Peritonitis.....	22	26	31	56
Typhus.....	446	424	273	403	Tuberc Mesenterica.....	137	136	188	343
Erysipelas.....	39	85	56	92	Worms.....	9	6	10	9
Syphilis.....	13	8	17	28	Ascites.....	15	27	19	26
Hydrophobia.....	1	..	..	..	Ulceration (of Intestines, &c.).....	39	18	38	43
II. Inflammation.....	34	7	..	..	Hæma.....	13	20	18	36
Hæmorrhage.....	29	30	29	26	Colic or Ileus.....	29	37	29	35
Dropsy.....	316	312	297	140	Intussusception.....	7	3	14	8
Abscess.....	23	30	19	14	Stricture.....	7	5	5	11
Noma.....	..	..	7	3	Hæmatemesis.....	10	13	7	16
Mortification.....	56	45	31	31	Disease of Stomach, &c.....	93	86	93	116
Purpura.....	6	7	11	9	Disease of Pancreas.....	21	21	23	71
Scrofula.....	45	45	32	84	Hepatitis.....	36	28	29	42
Cancer.....	151	121	190	195	Jaundice.....	118	89	135	162
Tumour.....	5	11	8	4	Disease of Liver, &c.....	6	..	3	3
Gout.....	4	10	11	19	Disease of Spleen.....	4	5	4	6
Atrophy.....	154	201	233	473	VII. Nephritis.....	1	..	..	2
Debility.....	262	287	221	299	Ischuria.....	1	..	..	2
Malformations.....	21	25	24	48	Diabetes.....	3	2	13	8
Sudden Deaths.....	118	108	91	63	Cystitis.....	5	3	3	7
					Stone.....	3	7	11	9
					Stricture.....	9	17	11	13
					Disease of Kidneys, &c.....	42	56	59	93
					VIII. Childbirth.....	76	82	70	80
					Paramenia.....	6	1	4	4
					Ovarian Dropsy.....	5	3	6	13
					Disease of Uterus, &c.....	27	38	40	55
					IX. Arthritis.....	3	1	1	..
					Rheumatism.....	26	31	31	62
					Disease of Joints, &c.....	49	52	39	54
					X. Carbuncle.....	1	1	3	1
					Phlegmon.....	1	1	5	7
					Uter.....	5	1	6	9
					Fistula.....	5	3	7	3
					Disease of Skin, &c.....	5	6	6	9
					XI. Old Age.....	679	618	569	487
					Intemperance.....	12	8	14	29
					Privation.....	13	3	2	3
					Violent Deaths.....	314	282	342	433
					Causes not specified.....	33	28	40	41

QUARTERLY METEOROLOGICAL TABLE,
Compiled from the Weekly Tables furnished to the Registrar-General by the Astronomer Royal.

1846 Weeks ending	Phases of the Moon.	THERMOMETERS.										Self-Registering.				In the Water of the Thames at Greenwich by the Self-Regis- tering Thermo- meter read at 9 o'clock.		Difference between the mean temperature of the week, and the mean temperature of the same week on an average of 25 years.		WIND.			Rain in inches [7 days.]		Deaths at Three Ages, exclusive of violent and sudden Deaths.			Deaths from all causes, exclusive of violent and sudden Deaths.		
		Means.			Dew Point.	Highest in the Sun.		Lowest on the Grass.		Mean of 72 results.	During the week.		During the week.		Of the highest on each day from 7 observations.	Of the lowest on each day from 7 observations.	Mean of 72 differences.	Mean of the greatest on each day, 6 observations.	Mean of the least on each day, 6 observations.	Difference between the mean temperature of the week, and the mean temperature of the same week on an average of 25 years.	General Direction.	Greatest pressure in the week.	Mean for the week.	The amount of horizontal movement of the air in each week.	Mean amount of Cloud, 0-10.	Rain in inches [7 days.]	0 to 15.		15 to 60.	60 and upwards.
		Of the highest on each day, from 6 observations.	Of the lowest on each day, from 6 observations.	Difference.		Mean of 72 observations weekly.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.		Mean of 7 observations.	Mean of 72 differences.	Mean of the greatest on each day, 6 observations.	Mean of the least on each day, 6 observations.																
		inches	degrees Fahrenheit.	Highest during the week.	Lowest during the week.	Mean of 72 observations weekly.	Mean of 72 results.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.	Mean of 7 observations.		Mean of 7 observations.	Mean of 7 observations.
July	4 1st qtr, July 1st.	29.877	86.8	52.8	74.9	55.5	19.4	65.0	55.9	115.8	98.3	43.2	50.2	—	67.0	9.2	18.9	1.9	+ 3.4	S.S.W.	5.0	0.5	1210	5.5	0.12	471	298	125	894	
"	11 Full, 8th.	29.661	83.7	40.2	66.3	53.3	13.0	60.0	54.5	113.0	90.3	41.0	47.0	—	65.8	5.5	10.9	1.5	+ 2.7	S.W.	5.0	0.3	1000	8.0	0.96	485	249	146	882	
"	18 Last quarter, 15th	29.552	82.5	34.0	73.8	56.1	17.7	64.9	56.4	110.5	97.1	43.2	48.2	—	66.5	8.5	17.4	1.2	+ 1.4	S.W.	9.0	0.5	1150	5.8	0.31	536	324	165	1026	
"	25 New, 22nd	29.770	76.5	52.5	72.2	55.3	16.9	62.6	54.4	99.5	95.5	40.8	46.4	66.8	65.4	8.3	17.1	1.7	+ 0.2	S.W.	4.5	0.4	1100	6.8	0.45	529	273	164	976	
August	1 1st quarter, 31st.	29.483	88.4	56.6	83.2	61.4	21.8	70.6	62.0	112.0	106.9	46.2	53.9	68.8	67.6	8.6	21.8	1.0	+ 7.7	S. W. & Variable.	3.8	0.1	405	5.8	0.82	579	272	211	1063	
"	8 Full, Aug. 7th.	29.706	83.7	55.3	76.2	59.6	16.6	66.5	61.9	110.3	98.0	48.2	53.3	71.0	69.9	4.5	11.9	0.3	+ 3.6	S.	2.2	0.0	440	7.8	2.12	503	297	204	1100	
"	15 Last quarter, 13th	29.799	74.6	48.0	70.1	54.5	15.6	61.8	55.0	98.5	91.8	39.0	48.2	69.3	67.4	6.8	14.9	0.8	+ 1.3	S.S.W.	4.0	0.1	835	7.3	0.54	504	271	149	925	
"	22 New, 21st.	29.649	68.1	52.7	66.3	53.5	10.8	60.8	55.6	93.8	87.9	41.6	48.4	67.1	65.3	5.2	11.9	0.8	+ 0.8	S.W.	3.8	0.2	845	8.2	0.76	455	251	163	870	
"	29 1st quarter, 26th	29.938	76.9	49.2	71.4	55.2	16.2	62.6	56.6	102.0	91.9	38.5	45.8	66.1	64.1	6.0	14.6	0.5	+ 0.8	N.N.E.	2.0	0.1	725	8.1	0.33	444	278	153	875	
Sept.	5 Full, Sept. 5th.	30.099	73.1	45.8	74.5	51.1	23.4	61.6	54.9	100.5	96.3	34.0	43.5	66.1	64.6	6.7	17.6	0.3	+ 2.4	N.N.E.	0.5	0.0	455	4.1	0.00	396	289	165	850	
"	12 Last quarter, 12th	30.020	77.2	53.7	74.2	56.9	17.3	64.5	59.9	114.5	98.8	43.0	47.2	67.2	65.6	4.6	12.5	0.2	+ 6.4	S.W.	1.5	0.0	365	6.8	0.02	401	302	177	880	
"	19 —	29.927	76.3	43.0	71.3	50.5	20.8	60.3	53.9	97.0	92.7	32.0	41.1	66.1	64.6	6.4	14.8	0.4	+ 2.2	Variable	2.0	0.0	355	5.5	0.00	375	296	147	819	
"	26 New 20th.	29.479	69.5	52.0	65.9	53.4	12.5	59.2	54.7	90.5	83.1	42.5	47.0	—	61.5	4.5	10.9	0.4	+ 3.4	E.	2.5	0.1	875	6.8	1.00	356	260	167	783	
Mean, Highest, or Lowest of the 13 weeks.		29.797	83.4	43.0	72.3	55.3	17.0	63.1	56.6	115.8	94.5	32.0	47.7	67.6	65.8	6.5	15.0	0.8	+ 2.1		9.0	0.2	751	6.7	8.03	6129	3690	2136	11943	

* In reading the 20th column, it will be borne in mind that + is read "higher," and — is read "lower," than the average.

+ Mean of nine weeks.

REVENUE.

An Abstract of the Net Produce of the Revenue of Great Britain in the Years and Quarters ending 10th October, 1845 and 1846; showing the Increase or Decrease thereof.—(Continued from page 285.)

Sources of Revenue.	Years ending 10th October.			
	1845.	1846.	Increase.	Decrease.
	£	£	£	£
Customs.....	18,652,552	18,150,933	.....	501,619
Excise.....	12,069,215	12,251,932	182,717	.....
Stamps.....	6,961,370	6,983,129	21,759	.....
Taxes.....	4,228,281	4,238,560	10,279	.....
Property Tax.....	5,127,126	5,332,157	205,031	.....
Post Office.....	688,000	802,000	114,000	.....
Crown Lands.....	145,000	115,000	.....	30,000
Miscellaneous.....	902,960	1,324,548	421,588	.....
Total Ordinary Revenue....	48,774,504	49,198,259	955,374	531,619
Imprest and other Moneys..	406,619	224,747	.....	181,872
Repayments of Advances....	1,325,760	1,172,141	.....	153,619
Total Income.....	50,506,883	50,595,147	955,374	867,110
Deduct Decrease.....			867,110	
Increase on the Year.....			88,264	

Sources of Revenue.	Quarters ending 10th October.			
	1845.	1846.	Increase.	Decrease.
	£	£	£	£
Customs.....	4,848,363	5,310,835	462,472	.....
Excise.....	3,955,106	4,181,926	226,820	.....
Stamps.....	1,780,175	1,771,364	.....	5,811
Taxes.....	201,279	209,940	8,661	.....
Property Tax.....	1,823,883	1,972,128	148,245	.....
Post Office.....	209,000	217,000	8,000	.....
Crown Lands.....	30,000	15,000	15,000	.....
Miscellaneous.....	165,102	405,554	.....	59,548
Total Ordinary Revenue....	13,312,908	14,116,747	869,198	65,359
Imprest and other Moneys..	24,591	33,815	9,224	.....
Repayments of Advances....	473,881	199,882	.....	273,999
Total Income.....	13,811,380	14,350,441	878,422	339,358
Deduct Decrease.....			339,358	
Increase on the Quarter.....			539,064	

Consolidated Fund Operations.—The total income brought to this account in the quarter ending 10th Oct., 1846, was 14,360,447*l.*; the total charge upon it was 8,598,077*l.*; leaving a surplus of 5,762,370*l.* The amount of Exchequer Bills issued to meet the charge on the Consolidated Fund for the quarter ending 5th July, 1846, and paid off out of the growing produce of that fund for the quarter ending 10th Oct., 1846, after deducting 570,000*l.* paid off out of the Sinking Fund, was 229,344*l.* The probable amount of Exchequer Bills required to meet the charge on the Consolidated Fund in the quarter ending 10th Oct., 1846, is stated at 727,482*l.*

CORN.

Average Prices of Corn per Imperial Quarter in England and Wales, with the Rate of Duty on Foreign and Colonial Wheat, during each Week of the Third Quarter of 1846; together with the Average Prices for the whole Quarter.—(Continued from p. 286.)

Returns received at the Corn Office, 1846.	Wheat.		Barley.	Oats.	Rye.	Beans.	Peas.	Date of Certificates of preceding Prices, regulating Duties for the Week ensuing.	Duties on Wheat per Quarter.	
	Weekly Average	Aggregate Average of Six Weeks regulating Duty.	Weekly Average	Weekly Average	Weekly Average	Weekly Average	Weekly Average		From Foreign Countries.	From British Possessions out of Europe.
Weeks ending 1846.	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>		<i>s. d.</i>	<i>s. d.</i>
July 4 .	52 10	52 5	27 6	23 8	33 3	38 5	33 5	July 9	5 0	
11 .	52 3	52 3	27 7	24 3	33 11	37 11	35 3	16	6 0	
18 .	50 10	51 11	27 10	23 0	36 5	38 4	36 4	23	6 0	
25 .	49 11	51 7	27 2	23 5	29 9	38 9	36 10	30	6 0	
Aug. 1 .	47 5	50 11	26 11	23 5	28 2	39 3	35 11	Aug. 6	7 0	
8 .	45 2	49 9	26 9	24 0	29 8	39 8	35 3	13	8 0	
15 .	45 1	48 6	27 3	23 3	30 7	39 6	36 0	20	9 0	
22 .	45 11	47 5	27 5	23 3	30 10	39 9	36 9	27	10 0	
29 .	47 10	46 11	29 1	23 0	31 10	39 9	38 6	Sept. 3	10 0	
Sept. 5 .	49 0	46 9	31 0	23 2	32 7	40 4	37 1	10	10 0	
12 .	50 0	47 2	33 7	23 5	32 4	40 11	38 10	17	10 0	
19 .	51 3	48 2	36 1	23 7	33 0	41 6	40 5	24	9 0	
26 .	53 1	49 6	36 10	23 7	35 7	42 7	45 0	Oct. 1	8 0	
Average of the Quarter }	49 3	49 6	29 7	23 6	32 2	39 0	37 6	..	8 0	

Foreign and Colonial Wheat and Wheat-Flour imported in each of the Months ending 5th July, 5th August, and 5th September, 1846; the Quantities upon which Duties have been paid for Home Consumption during the same Months; and the Quantities remaining in Bond at the close of them.—(Continued from p. 286.)

WHEAT.

Months ending.	Imported.			Paid Duty.			In Bond at the Month's end.		
	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.
1846	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.	qrs.
5th July	205,305	10,765	216,070	1,627,008	11,114	1,638,122	21,216	1,053	22,269
5th Aug.	130,687	21,319	152,006	117,783	20,146	137,929	27,210	2,255	29,465
5th Sept.	82,769	13,018	95,787	12,140	12,388	51,128	41,611	2,985	47,626

WHEAT-FLOUR.

Months ending.	Imported.			Paid Duty.			In Bond at the Month's end.		
	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.	Foreign.	Colonial.	Total.
1846	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.
5th July	411,528	102,970	517,198	1,882,948	104,809	1,987,757	21,096	6,859	27,955
5th Aug.	310,582	173,001	483,583	304,263	164,031	468,297	23,268	15,827	39,096
5th Sept.	106,607	170,776	277,383	60,356	172,177	232,533	53,637	14,948	68,585

CURRENCY.

BANK OF ENGLAND.

An Account, pursuant to the Act of the 7th and 8th Victoria, c. 32, for the Weeks ending on Saturday, the 25th July, the 22nd August, and 19th September, 1846.—(Continued from p. 287.)

ISSUE DEPARTMENT.

	Weeks ending,		
	25th July, 1846.	22nd Aug. 1846.	19th Sept. 1846.
	£	£	£
Notes issued	29,312,945	29,653,990	29,758,615
Government Debt	11,015,100	11,015,100	11,015,100
Other Securities	2,981,900	2,981,900	2,981,900
Gold Coin and Bullion	12,875,243	13,145,719	13,044,770
Silver Bullion	2,437,762	2,508,271	2,713,815
Total	29,312,945	29,653,990	29,758,615

BANKING DEPARTMENT.

Proprietors' Capital	14,553,000	14,553,000	14,553,000
Reserve	3,508,378	3,613,216	3,873,191
Public Deposits	3,438,401	6,843,002	8,765,570
Other Deposits	14,305,311	10,074,026	8,316,924
Seven Day and other Bills	940,024	920,016	869,247
Total	36,745,144	36,003,260	36,378,232
Government Securities, including Dead Weight Annuities	12,962,560	12,961,735	12,961,360
Other Securities	14,583,197	13,012,821	13,049,001
Notes	8,562,695	9,506,925	9,817,195
Gold and Silver Coin	636,482	522,676	550,676
Total	36,745,144	36,003,260	36,378,232

COUNTRY BANKS.

Average Aggregate Amount of Promissory Notes of Country Banks, which have been in Circulation in the United Kingdom, distinguishing the several Banks, or Classes of Banks, by which issued in each part of the Kingdom, during the weeks ending 25th July, 22nd August, and 19th September, 1846.—(Continued from p. 287.)

Banks.	18th July, 1846.	15th Aug. 1846.	12th Sept. 1846.
England—Private Banks	4,110,329	4,363,076	4,390,274
Joint Stock Banks	3,089,431	3,061,279	3,111,622
Scotland—Chartered, Private, and Joint Stock Banks	3,390,060	3,371,906	3,416,787
Ireland—Bank of Ireland	3,995,875	3,876,700	3,923,475
Private and Joint Stock Banks	2,690,461	2,603,817	2,664,600
Total	17,576,311	17,276,778	17,536,868

BANKRUPTCY.

An Analysis of the Bankruptcies in England and Wales, gazetted in each Month of the Quarter ending September 30, 1846; showing the Counties and Branches of Industry in which they have occurred.—(Continued from p. 283.)

COUNTIES.	July.	August.	September	TRADES.	July.	August.	September
Metropolis	36	34	19	<i>Agriculture and connected Trades.</i>			
Bedford	1	.....	.....	Farmers	2	.....	1
Berks .....	.....	.....	2	Agricultural Implement Makers, &c. ....	.....	.....	.....
Bucks .....	.....	.....	.....	Corn Factors	2	3	2
Cambridge	1	3	2	Millers and Malsters	2	1	3
Cheshire	1	1	1	Hop Merchants .....	.....	.....	.....
Cornwall	2	3	.....	Brewers	1	2	.....
Cumberland .....	.....	.....	.....	Horse and Cattle Dealers, and Woolstaplers	3	.....	3
Derby	1	.....	1	<i>Mining and connected Trades.</i>			
Devon	4	1	1	Mining Firms .....	.....	.....	.....
Dorset	1	1	1	Blasting Works .....	.....	.....	.....
Durham .....	.....	2	1	<i>Manufactures.</i>			
Essex	1	1	.....	Woollen Manufacturers	2	4	1
Gloucester	1	1	1	Cotton	2	1	2
Hants .....	.....	2	1	Linen	2	.....	.....
Hereford	1	.....	.....	Silk	1	1	.....
Hertford	1	.....	1	Printers and Dyers	1	1	.....
Huntingdon	1	.....	.....	Lace Manufacturers .....	.....	.....	1
Kent	4	3	1	Hosiery .....	.....	.....	.....
Lancashire	16	21	13	Hardware .....	.....	1	.....
Leicester	1	2	2	Earthenware .....	.....	.....	.....
Lincoln	4	.....	2	Glass	2	1	.....
Middlesex (exclusive of the Metropolis) }	1	3	.....	Paper .....	.....	.....	.....
Monmouth	1	1	.....	Builders	10	4	3
Norfolk	2	2	.....	Miscellaneous Manufacturers	13	23	5
Northampton .....	.....	.....	1	<i>Commerce.</i>			
Northumberland	3	1	2	Bankers and Merchants .....	.....	2	5
Nottingham	3	.....	1	Shipowners, Warehousemen, Brokers, and Wholesale Dealers generally	16	14	9
Oxford .....	.....	.....	.....	<i>Retail and Handicraft Trades.</i>			
Rutland .....	.....	.....	.....	Bakers	2	1	.....
Salop	1	.....	3	Butchers .....	.....	1	2
Somerset (including Bristol) }	5	6	1	Corn and Hay Dealers .....	.....	3	1
Stafford	5	.....	3	Innkeepers and Victuallers	8	5	5
Suffolk .....	.....	1	.....	Wine and Spirit Merchants	3	.....	2
Surrey (exclusive of the Metropolis) }	.....	2	.....	Dealers in Grocery, Drugs, and Spices	4	16	7
Sussex	3	2	1	Makers of, and Dealers in, Clothing	10	9	8
Warwick	2	9	2	Makers of, and Dealers in, Furniture	1	1	2
Westmoreland .....	.....	.....	.....	Coach Builders .....	.....	.....	1
Wilts .....	.....	3	.....	Miscellaneous	28	27	16
Worcester	2	.....	1				
York (East Riding)	3	3	1				
.. (North Riding)	2	2				
.. (West Riding)	9	6	8				
Wales	3	5	4				
Total	122	121	79	Total	122	121	79

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